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# Monitoring Chronic Diseases in Orange County

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A Report Based on Chronic Disease Deaths and Hospitalizations in 1997



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June 2000

The Chronic Disease and Injury Prevention Program was established on January 1, 1998. This is the first report of the Chronic Disease monitoring system.



**COUNTY OF ORANGE  
HEALTH CARE AGENCY**

**PUBLIC HEALTH**

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September 1999

Our Colleagues in Chronic Disease Prevention,

We are pleased to share this first annual report on "Monitoring Chronic Disease in Orange County: A Report Based on Deaths and Hospitalizations in 1997" with you. It is our hope that with accurate and compelling data, we will be able to work with you to improve the health of Orange County residents.

Let me share with you the impetus for this annual report. In January 1998, the County Board of Supervisors funded the Chronic Disease and Injury Prevention program. The program has two goals: 1) to monitor the rates of chronic disease and injury in the county and 2) to help build the capacity of individuals, groups, organizations, and communities to prevent chronic disease and injury.

As a first step toward achieving these goals, we will publish annual reports on the rates of chronic disease and injury in the county. Our objective in publishing these reports is to inform residents about the rates of chronic disease and injury in the county, providing comparisons to California rates and the United States Department of Health and Human Services' *Healthy People 2000* objectives for the nation. These annual reports will then serve as the basis for white papers on selected chronic disease and injury prevention topics. Our staff will take these white papers to the community in order to collaborate with them on enhancing the services we are already providing and developing new services where there are gaps.

If you have any questions about this report, please contact Bob Olson, PhD, MPH, Program Supervisor of the Chronic Disease and Injury Prevention Program, at (714) 834-3892.

Thank you for your interest.

Sincerely,

Mark Horton, MD, MPH  
Director of Public Health/Health Officer

HM:BO

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## Acknowledgements

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## Preface

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A few words of explanation are in order before readers take up this *Monitoring Chronic Disease in Orange County* report:

- *Who is the report designed for?* The report is designed for both lay and technical readers. Lay readers, such as policy makers, health care professionals in education and clinical services, and community activists, for example, can easily read the body of the paper. More technical readers, on the other hand, may find the data in the appendixes more valuable.
- *How did we determine which diseases to include in the report as "chronic diseases"?* There is considerable discussion about this topic. We decided to rely on the list in *Chronic Disease Epidemiology and Control*, 2<sup>nd</sup> edition (Ross C. Brownson, Patrick L. Remington, and James R. Davis, eds.). This standard text defines "chronic disease" as a "disease that has a prolonged course, does not resolve spontaneously, and for which a complete cure is rarely achieved" (3). This report will *not* include mental health illnesses which may have a chronic dimension to them.
- *Why did we use different types of data displays?* Mostly to make the document more readable, in terms both of the representation of the data and in the variety of representation.
- *What are the sources of data for this report?* They are listed in Appendix A, "Data Set Information."
- *How can I get a copy of the ICD9 codes used in this report?* Contact us at (714) 834-7635.
- *What does "greater rate" or "greater risk" mean in this report?* It means the difference is statistically significant at  $p < 0.05$ . Significance testing was done using confidence intervals or chi-square.
- *What diagnoses does the report use?* Only primary diagnosis. In addition, some patients may have had multiple hospitalizations for the same chronic disease; therefore, the numerator in the hospitalization rates represents the episode, not the person.
- *Will Orange County data always be compared to California data and Healthy People 2000 objectives?* Only when we have them. For example, there are a number of chronic diseases for which *Healthy People 2000* has no objectives.\*

As you read the report, if you have more questions—or ideas for improving it—please contact us at (714) 834-7635. We'd like to hear from you.

\* *Healthy People 2010* provides additional objectives for chronic diseases, but it will not be used in this report.

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# Introduction

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What are chronic diseases? Why are we focusing on them in this report? Chronic diseases are conditions which impact an individual's health over an extended period of time, do not spontaneously remit, frequently cause disability and premature death, and most often have no single or simple remedy. We focus on them in this report for two major reasons: taken together they are responsible for, by far, the largest proportion of death and disability in our communities, and they are eminently preventable. Very simply, the prevention of chronic diseases represents the greatest "reservoir of opportunity" to improve the health outcomes for our population.

***Monitoring Chronic Disease in Orange County*** highlights important chronic diseases, either for which residents of Orange County have been hospitalized, or from which they have died in 1997. Reducing disability and death due to chronic diseases is a major goal of the County Of Orange Health Care Agency. As a first step in meeting this goal, the County Board of Supervisors authorized the Agency to create the Chronic Disease and Injury Prevention Program, which established the Chronic Disease Monitoring System. This is the first report on chronic diseases of that monitoring system.

The report focuses on those physical conditions responsible for the greatest burden of disease in our population, as measured by hospitalization rates and death rates. These conditions include the following chronic disease categories: "Cardiovascular Disease" (heart disease and stroke), "Cancer" (lung cancer, colorectal cancer, breast cancer, and prostate cancer), "Chronic Lung Disease" (chronic obstructive pulmonary disease and asthma), "Arthritis and Other Musculoskeletal Diseases" (osteoarthritis and osteoporosis), "Chronic Neurological Disorders" (epilepsy, Alzheimer's Disease, and Parkinson's disease), and "Other Chronic Diseases" (diabetes, cirrhosis, benign neoplasms, carcinoma in situ, and other neoplasms).

The report compares Orange County's rates of chronic disease to California's rates and to the nation's *Healthy People 2000* objectives when available. Next year's report will be based on 1998 data, and it will be benchmarked against *Healthy People 2010*, which was recently released. Absent from the report is any discussion of mental illness or substance abuse, chronic conditions with a huge impact on both the physical and emotional health of our population. It is our intention to work with our partners in the Health Care Agency and in the community to produce a report on those conditions in the near future. Also absent from this report is a discussion of the real causes of chronic diseases—the personal behaviors that so predictably lead to the unhealthy conditions we call chronic diseases. It is our intention to issue a series of "white papers" on specific chronic diseases, such as heart disease and asthma, with a discussion of risk factors and effective community prevention and control strategies.

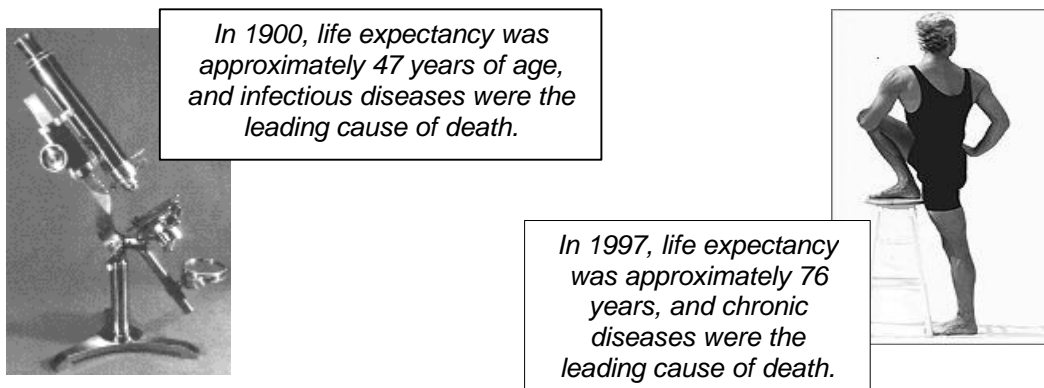
Some technical details: as mentioned, this report uses 1997 data—the most recent comprehensive data set available when the analysis began. In addition to reports on each of the chronic disease categories mentioned above, for readers interested in more detailed information, data is provided in the appendices for hospitalizations and deaths by age, race, and gender. Moreover, rates are

age-adjusted to the 1940 United States population unless otherwise indicated. Diagnoses used in this report are consistent with ICD-9 codes, which are available from us upon request.

Following this introduction are some highlights from the report. Several important themes emerge. First, it is clear that, despite advances in both the prevention and treatment of chronic conditions, they continue to extract a huge toll on the health of our population, and they will continue to deserve our attention, resources and coordinated efforts at prevention and improved management. Secondly, these conditions have a differential effect on subgroups of our population, resulting in unacceptable disparities in their health status. We need a greater commitment to the elimination of these disparities, an overarching goal of *Healthy People 2010*. Finally, we need a clear focus on those conditions differentially affecting the aged, such as arthritis and osteoporosis, which although they do not often kill, do have a significant impact on quality on life by limiting the ability to care for oneself and engage in normal daily activities.

We expect that this report will be useful to a broad spectrum of readers, including health care professionals and administrators, program planners and evaluators, policymakers and ordinary citizens. This report should assist us as a community in focusing our prevention efforts on the right targets, planning the right community interventions, and quantifying the impact of those interventions.

Thank you for your interest in this report. We would greatly appreciate any comments or suggestions you have after reviewing it on how to improve its usefulness. We look forward to working with you to reduce the burden of chronic disease in Orange County and making it the “Healthiest Place on Earth.”



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## Summary

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### Overview

- In Orange County's population of 2.6 million, there were 65,385 hospitalizations and 11,033 deaths due to chronic disease in 1997.
- Heart disease caused substantially more hospitalizations (43.1%) and deaths (46.7%) than any other chronic disease.
- Residents 85 and older were at greatest risk for chronic disease-related hospitalizations and deaths.

### Cardiovascular Disease:

- For ages 35 and older, males had a greater heart disease hospitalization rate than females.
- After age-adjusting, Blacks and Whites had the greatest risk for heart disease-related death among racial population subgroups.
- Nearly three-fourths (73%) of all stroke-related deaths occurred among those 85 years and older.
- While men have a higher rate for heart disease than women, the actual number of deaths due to heart disease is higher for women.

### Cancer:

- Males 65 and older were at 1.6 times greater risk for death due to lung cancer compared to females 65 and older.
- Colorectal cancer was the number one cause of cancer-related hospitalizations in 1997.
- For women, breast cancer was the principal reason for cancer-related hospitalization.
- Fifty-two percent of prostate cancer deaths occurred among males ages 80 and older.

### Chronic Lung Diseases:

- Overall, males 45 and older were at higher risk for death due to chronic obstructive pulmonary disease (COPD) than females 45 and older.
- Asthma was the primary cause of chronic disease hospitalization for ages 0-24.

## **Arthritis and Other Musculoskeletal Diseases:**

- Orange County females were disproportionately affected by osteoarthritis compared to males, with a peak in hospitalization rates between the ages of 75-79.
- For ages 45 and older, females had a greater hospitalization rate for osteoporosis than males.

## **Chronic Neurologic Disorders:**

- Children in the 0-4 age group made up 23% of all epilepsy hospitalizations.
- The death rate for Alzheimer's disease in the 85 and older age group was 324.7 per 100,000 as compared to 12.1 per 100,00 in the 65-74 age category.
- Residents 85 and older had a 15 times greater risk for death due to Parkinson's disease compared to residents ages 65-74.

## **Other Chronic Diseases:**

- For ages 55-84, the diabetes hospitalization rate was greater for males compared to females.
- Blacks were at greatest risk for diabetes-related death compared to all other races.
- Hispanics were at 2.9 times greater risk for cirrhosis-related death compared to Asians and a 1.7 times greater risk compared to Whites.
- Alcohol use was the principal risk factor in both male and female deaths due to cirrhosis.

## ***Healthy People 2000:***

- Orange County met the *Healthy People 2000* objectives for more than half of the chronic disease targets during 1997.
- Orange County met or exceeded the *Healthy People 2000* objectives for most types of cancer-related deaths with the exception of deaths due to cervical cancer.
- The diabetes death rate in Orange County was lower than the national objective set in *Healthy People 2000*.
- Orange County did not meet the *Healthy People 2000* target death rate for coronary heart disease for Blacks.

## **Hospitalization Cost and Length of Stay:**

- Cancer-related hospitalizations were responsible for 5 of the top 10 greatest per day hospitalization costs.

- In 1997, Orange County residents with leukemia spent more days in the hospital for their disease than persons with other types of chronic diseases.



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# **Overview of Chronic Diseases in Orange County 1997**

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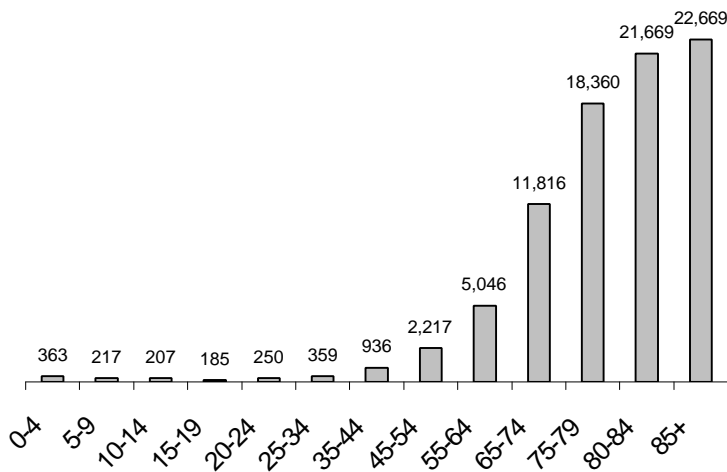
## Chronic Disease Hospitalizations

- Chronic disease hospitalizations discussed in this report will include only the following non-infectious, chronic diseases. These chronic diseases represent the primary reasons for hospitalization. The shaded chronic diseases will be analyzed in greater detail in later sections. (See page 67 for data information)

### Which Chronic Diseases Caused Orange County Residents to Be Hospitalized in 1997?

Primary Diagnosis	Frequency	Percent
<b>Cardiovascular Disease</b>	<b>37,108</b>	<b>56.8%</b>
Diseases of the heart	28,184	43.1%
Stroke	7,764	11.9%
Atherosclerosis	747	1.1%
Hypertension with or without renal disease	413	0.6%
<b>Cancer</b>	<b>5,811</b>	<b>8.9%</b>
Colorectal cancer	1,227	1.9%
Lung cancer	1,076	1.6%
Breast cancer (female)	1,041	1.6%
Prostate cancer	869	1.3%
Lymphoma	484	0.7%
Bladder cancer	355	0.5%
Leukemia	352	0.5%
Oral and pharyngeal cancer	211	0.3%
Cervical cancer	157	0.2%
Melanoma of the skin	39	0.1%
<b>Chronic Lung Diseases</b>	<b>6,805</b>	<b>10.4%</b>
Chronic obstructive pulmonary disease	4,011	6.1%
Asthma	2,439	3.7%
Interstitial lung disease	235	0.4%
Cystic fibrosis	73	0.1%
Sleep apnea	40	0.1%
Asbestosis	7	0.0%
<b>Arthritis and Other Musculoskeletal Diseases</b>	<b>5,234</b>	<b>8.0%</b>
Osteoarthritis	3,784	5.8%
Osteoporosis	1,145	1.8%
Rheumatoid arthritis	264	0.4%
Gout	41	0.1%

Primary Diagnosis (continued)	Frequency	Percent
<b>Chronic Neurologic Disorders</b>	<b>1,306</b>	<b>2.0%</b>
Epilepsy	549	0.8%
Alzheimer's disease	178	0.3%
Migraine headaches	178	0.3%
Parkinson's disease	123	0.2%
Multiple sclerosis	97	0.1%
Guillain-barre syndrome	69	0.1%
Multi-infarct dementia	63	0.1%
Amyotrophic lateral sclerosis	20	0.0%
Muscle contraction headache	15	0.0%
Carpal tunnel syndrome	14	0.0%
<b>Other Chronic Diseases</b>	<b>9,118</b>	<b>13.9%</b>
Benign neoplasms, carcinoma in situ, and other neoplasms	4,420	6.8%
Diabetes	2,898	4.4%
Cirrhosis	915	1.4%
Hyperplasia of prostate	885	1.4%
<b>Total</b>	<b>65,382</b>	<b>100.0%</b>



*Hospitalization Rates for Major Chronic Diseases per 100,000 Population for Orange County Residents by Age, 1997*

- The rate of chronic disease hospitalizations was greater for ages 0-4 compared to ages 5-24.
- Beginning with the 25-34 age group, there was an increase in the chronic disease hospitalization rate with each advancing age category.
- Heart disease accounted for 43% of all chronic disease hospitalizations.

### Top 5 Chronic Diseases Requiring Hospitalization for Orange County Residents by Age, 1997

Rank 0-4 years(#)		5-9 years(#)	10-14 years(#)
1	Asthma (508)	Asthma (250)	Asthma (134)
2	Epilepsy (128)	Epilepsy (43)	Diabetes (52)
3	Diseases of the heart (60)	Diabetes (30)	Epilepsy (37)
4	Benign neoplasms, carcinoma in situ, and other neoplasms (33)	Leukemia (28)	Diseases of the heart (27)
5	Leukemia (33)		
	Diabetes (21)	Diseases of the heart (24)	Benign neoplasms, carcinoma in situ, and other neoplasms (23)

Rank 15-19 years(#)		20-24 years(#)	25-34 years(#)
1	Asthma (58)	Asthma (88)	Benign neoplasms, carcinoma in situ, and other neoplasms (380)
2	Diabetes (45)	Diabetes (65)	Diseases of the heart (305)
3	Benign neoplasms, carcinoma in situ, and other neoplasms (41)	Benign neoplasms, carcinoma in situ, and other neoplasms (63)	Asthma (229)
4	Epilepsy (34)	Diseases of the heart (60)	Diabetes (213)
5	Diseases of the heart (31)	Epilepsy (28)	Osteoporosis (77)

Rank 35-44 years(#)		45-54 years(#)	55-64 years(#)
1	Benign neoplasms, carcinoma in situ, and other neoplasms (1,283)	Diseases of the heart (2,978)	Diseases of the heart (4,754)
2	Diseases of the heart (1,055)	Benign neoplasms, carcinoma in situ, and other neoplasms (1,338)	Stroke (981)
3	Diabetes (360)	Diabetes (466)	Osteoarthritis (661)
4	Asthma (306)	Stroke (449)	Chronic obstructive pulmonary disease (658)
5	Cirrhosis (194)	Asthma (280)	Diabetes (515)

Rank 65-74 years(#)		75-79 years(#)	80-84 years(#)
1	Diseases of the heart (7,650)	Diseases of the heart (4,308)	Diseases of the heart (3,392)
2	Stroke (1,962)	Stroke (1,438)	Stroke (1,229)
3	Osteoarthritis (1,487)	Osteoarthritis (716)	Chronic obstructive pulmonary disease (512)
4	Chronic obstructive pulmonary disease (1,306)	Chronic obstructive pulmonary disease (697)	Osteoarthritis (401)
5	Diabetes (559)	Diabetes (248)	Diabetes (196)

Rank 85+ years(#)	
1	Diseases of the heart (3,540)
2	Stroke (1,393)
3	Chronic obstructive pulmonary disease (423)
4	Osteoarthritis (167)
5	Osteoporosis (161)

## Chronic Disease-Related Deaths

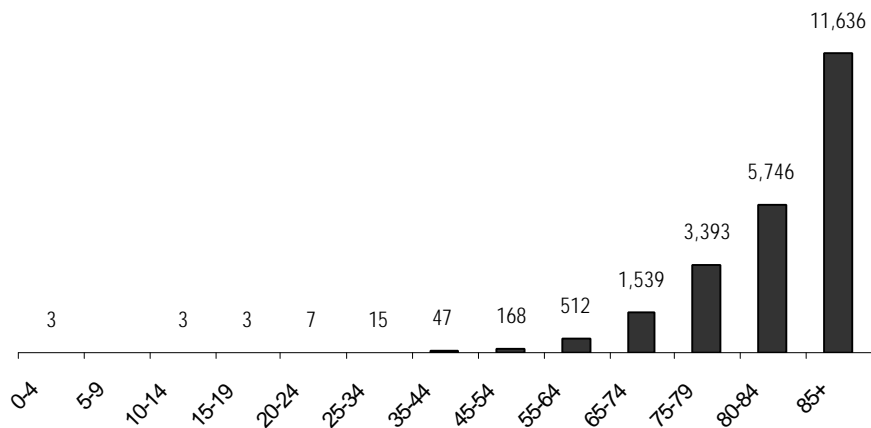
- Chronic disease-related deaths discussed in this report will include only the following non-infectious, chronic diseases. These chronic diseases represent the underlying cause of death. The shaded chronic diseases will be analyzed in greater detail in later sections. (See page 67 for data information)

### From Which Chronic Diseases Did Orange County Residents Die in 1997?

Primary Diagnosis	Frequency	Percent
<b>Cardiovascular Disease</b>	<b>6,602</b>	<b>59.8%</b>
Diseases of the heart	5,157	46.7%
Stroke	1,146	10.4%
Atherosclerosis	204	1.8%
Hypertension with or without renal disease	95	0.9%
<b>Cancer</b>	<b>2,496</b>	<b>22.6%</b>
Lung cancer	1,035	9.4%
Colorectal cancer	373	3.4%
Breast cancer (female)	304	2.8%
Prostate cancer	193	1.7%
Lymphoma	189	1.7%
Leukemia	157	1.4%
Bladder cancer	87	0.8%
Melanoma of the skin	78	0.7%
Oral and pharyngeal cancer	48	0.4%
Cervical cancer	32	0.3%
<b>Chronic Lung Diseases</b>	<b>914</b>	<b>8.3%</b>
Chronic obstructive pulmonary disease	815	7.4%
Interstitial lung disease	65	0.6%
Asthma	33	0.3%
Asbestosis	1	0.0%
<b>Arthritis and Other Musculoskeletal Diseases</b>	<b>16</b>	<b>0.1%</b>
Rheumatoid arthritis	9	0.1%
Osteoporosis	4	0.0%
Osteoarthritis	3	0.0%
<b>Chronic Neurologic Disorders</b>	<b>407</b>	<b>3.7%</b>
Alzheimer's disease	181	1.6%
Parkinson's disease	123	1.1%
Multi-infarct dementia	38	0.3%
Amyotrophic lateral sclerosis	36	0.3%
Multiple sclerosis	17	0.2%
Epilepsy	8	0.1%
Guillain-barre syndrome	4	0.0%

Primary Diagnosis (continued)	Frequency	Percent
<b>Other Chronic Diseases</b>	<b>598</b>	<b>5.4%</b>
Diabetes	328	3.0%
Cirrhosis	234	2.1%
Benign neoplasms, carcinoma in situ, and other neoplasms	32	0.3%
Hyperplasia of prostate	4	0.0%
<b>Total</b>	<b>11,033</b>	<b>100.0%</b>

- The risk of a chronic disease death was twice as high for residents ages 85 and older compared to ages 80-84.
- Eighty-three percent (83%) of chronic disease deaths occurred among residents ages 65 and older.
- Almost half (47%) of all chronic disease deaths were heart disease-related.



*Death Rates for Major Chronic Diseases per 100,000 Population for Orange County Residents by Age, 1997*



*Development of healthy habits to aid in chronic disease prevention should begin in childhood.*

### Top 5 Chronic Diseases Resulting in Death for Orange County Residents by Age, 1997

Rank	0-4 years(#)	5-9 years(#)	10-14 years(#)
1	Diseases of the heart (3)	Chronic obstructive pulmonary disease (2)	Leukemia (3)
2	Stroke (2) Leukemia (2)	Diseases of the heart (1) Stroke (1)	Diseases of the heart (1) Lymphoma (1) Oral and pharyngeal cancer (1)

Rank	15-19 years(#)	20-24 years(#)	25-34 years(#)
1	Asthma (2)	Diabetes (3)	Diseases of the heart (19)
2	Leukemia (1) Diseases of the heart (1) Epilepsy (1)	Asthma (2) Diseases of the heart (2)	Breast cancer (female) (8)
3		Leukemia (1) Stroke (1) Colorectal cancer (1) Cervical cancer (1)	Lymphoma (7)
4			Leukemia (6) Cirrhosis (6)
5			Asthma (5)

Rank	35-44 years(#)	45-54 years(#)	55-64 years(#)
1	Diseases of the heart (67)	Diseases of the heart (195)	Diseases of the heart (366)
2	Cirrhosis (32)	Lung cancer (68)	Lung cancer (187)
3	Stroke (23)	Breast cancer (female) (55)	Stroke (75)
4	Breast cancer (female) (20)	Cirrhosis (48)	Cirrhosis (58) Chronic obstructive pulmonary disease (58)
5	Lung cancer (4)	Stroke (43)	Colorectal cancer (54)

Rank	65-74 years(#)	75-79 years(#)	80-84 years(#)
1	Diseases of the heart (820)	Diseases of the heart (775)	Diseases of the heart (887)
2	Lung cancer (357)	Lung cancer (191)	Stroke (192)
3	Chronic obstructive pulmonary disease (215)	Stroke (161)	Chronic obstructive pulmonary disease (162)
4	Stroke (163)	Chronic obstructive pulmonary disease (156)	Lung cancer (137)
5	Colorectal cancer (94)	Diabetes (66)	Colorectal cancer (66)

Rank	85+ years(#)
1	Diseases of the heart (2,020)
2	Stroke (483)
3	Chronic obstructive pulmonary disease (203)
4	Atherosclerosis (121)
5	Alzheimer's disease (96)

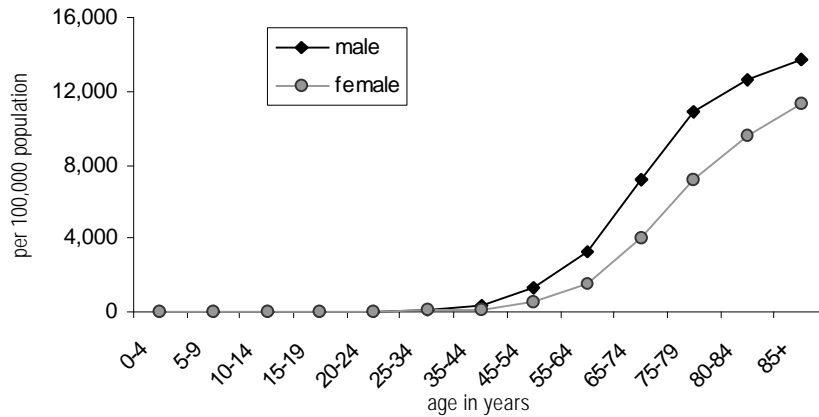
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# Cardiovascular Disease

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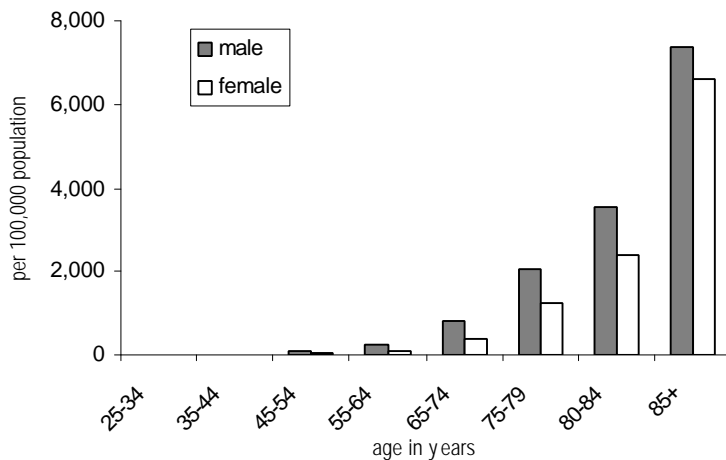


# Heart Disease



- For ages 35 and older, males had a greater heart disease hospitalization rate than females.
- Heart disease was the number one cause of chronic disease hospitalization for ages 45 and older.

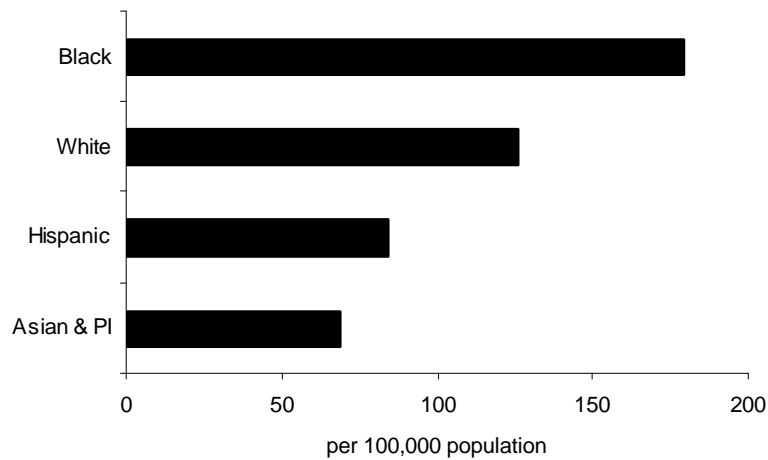
*Hospitalization Rates for Heart Disease per 100,000 Population for Orange County Residents by Age and Gender, 1997*



- For both males and females, there was an increase in the heart disease death rate with each increasing age category.
- Heart disease was the number one cause of chronic disease death for ages 25 and older.

*Death Rates for Heart Disease per 100,000 Population for Orange County Residents by Age and Gender, 1997*

## Heart Disease



- After age-adjusting, Blacks were at 1.4 times greater risk for heart disease death compared to Whites.
- Asians and Hispanics had the lowest age-adjusted heart disease death rate.

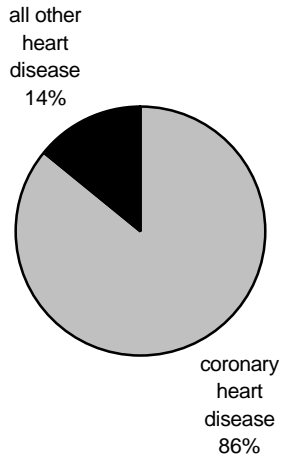
*Age-Adjusted Death Rates for Heart Disease per 100,000  
Population for Orange County Residents by Race, 1997*

### How Did Orange County's Deaths for Heart Disease Compare with California's in 1997?

	Orange County	California
Males	146.4	145.9
Females	96.9	83.3
<b>Total</b>	<b>119.2</b>	<b>111.9</b>

Age-adjusted to 1940 US population, per 100,000 population

# Heart Disease



- Coronary heart disease represented 86% of all heart disease-related deaths.

*Percentage of Heart Disease Deaths Represented by Coronary Heart Disease for Orange County Residents, 1997*

## How Did Orange County's Deaths for Coronary Heart Disease Compare with *Healthy People 2000's* Objective in 1997?

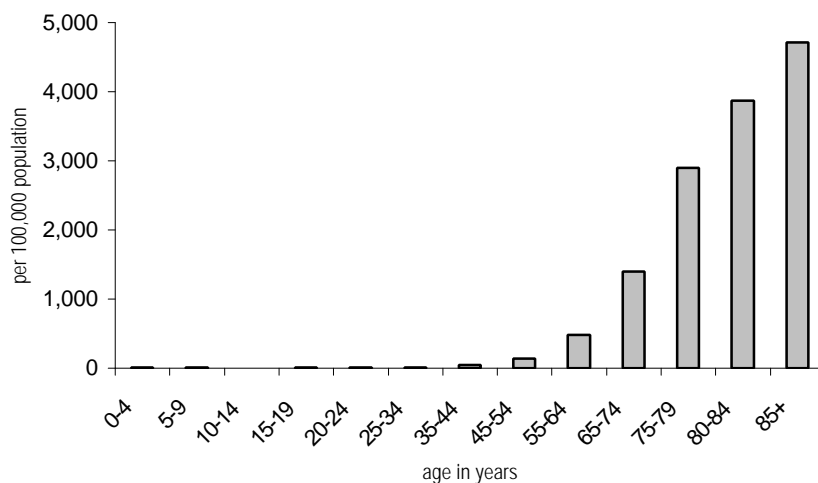
Orange County	<i>Healthy People 2000</i>
101.1	100

Age-adjusted to 1940 US population, per 100,000 population



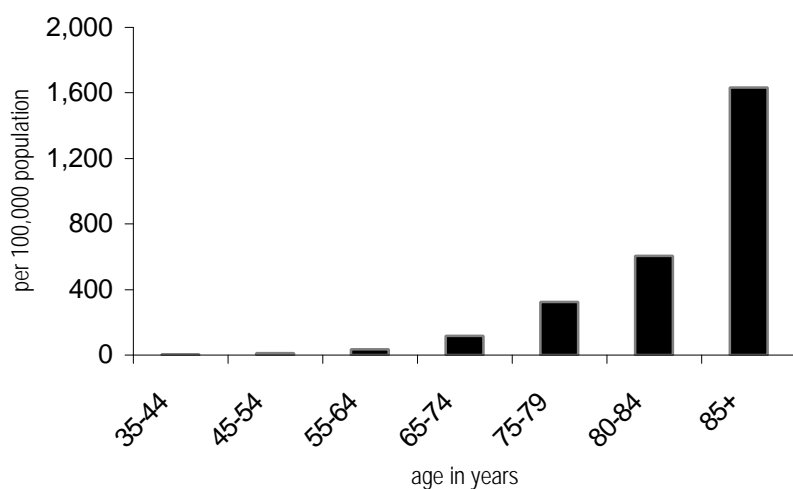
*The risk of heart disease can be reduced by having regular medical checkups, treating high blood pressure, exercising regularly, lowering cholesterol levels, preventing smoking, and maintaining a healthy weight.*

# Stroke



- In 1997, there were 7,764 stroke hospitalizations, representing the second greatest number of chronic disease hospitalizations.

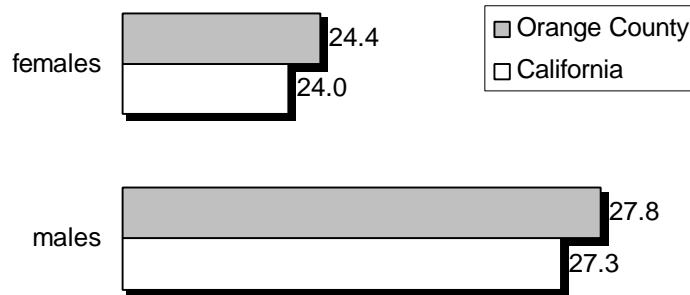
*Hospitalization Rates for Stroke per 100,000 Population for Orange County Residents by Age, 1997*



- The risk for stroke-related death was 2.7 times greater for ages 85 and older compared to ages 80-84.
- Seventy-three percent (73%) of stroke-related deaths occurred among residents 85 years and older.

*Death Rates for Stroke per 100,000 Population for Orange County Residents by Age, 1997*

# Stroke



*Age-Adjusted Death Rates for Stroke per 100,000 Population for Orange County and California Residents by Gender, 1997*

- After age-adjusting, there was no significant difference between males and females for the stroke-related death rate.
- The death rate for stroke was not significantly different for Orange County males and females compared to males and females statewide.

## How Did Orange County's Deaths for Stroke Compare with California's and *Healthy People 2000's* Objective in 1997?

Orange County	California	<i>Healthy People 2000</i>
26.0	25.6	20.0

Age-adjusted to 1940 US population, per 100,000 population



*The risk of stroke can be reduced by not smoking, not using illegal drugs, exercising regularly, maintaining a healthy weight, limiting alcohol intake, and visiting a health care provider for preventive check-ups.*



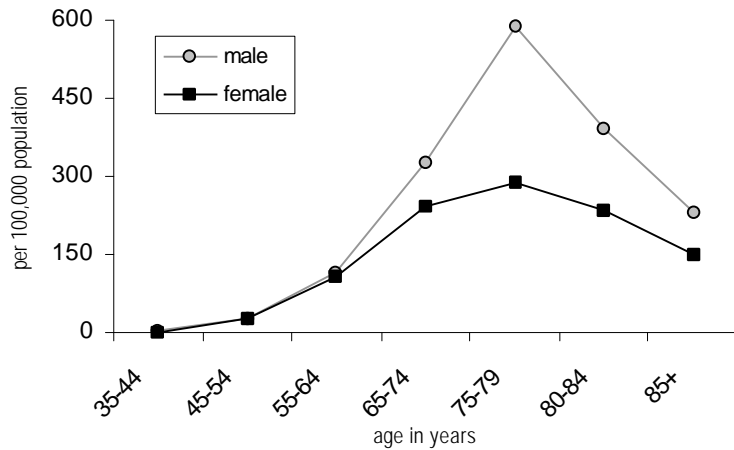
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# Cancer

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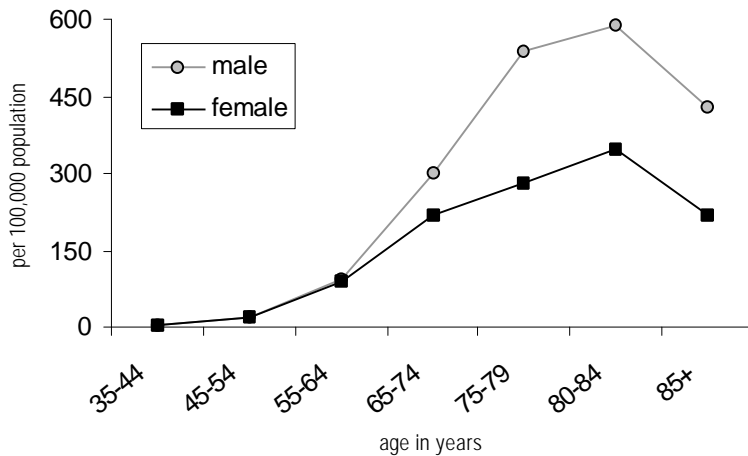


# Lung Cancer



- Males 65 and older had a higher rate of lung cancer hospitalizations compared to females 65 and older.
- The rate of lung cancer hospitalizations peaks for males in the 75-79 age group.

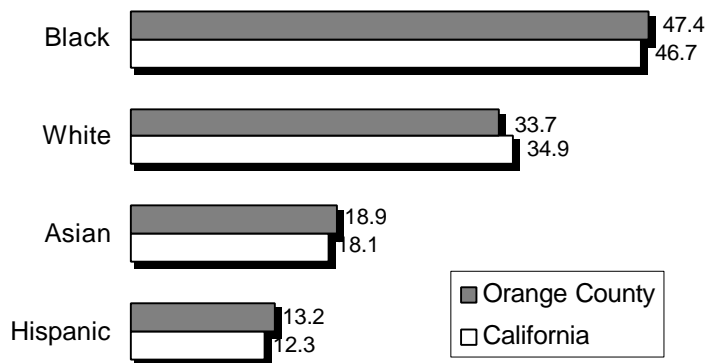
*Hospitalization Rates for Lung Cancer per 100,000 Population for Orange County Residents by Age and Gender, 1997*



- Males 65 and older were at 1.6 times greater risk for death due to lung cancer compared to females 65 and older.
- Lung cancer was the number one cause of cancer-related death for both males and females.

*Death Rates for Lung Cancer per 100,000 Population for Orange County Residents by Age and Gender, 1997*

# Lung Cancer



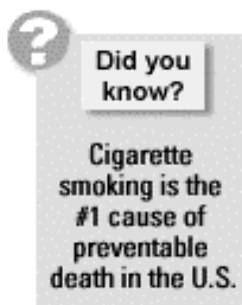
- Blacks and Whites had higher rates of lung cancer deaths compared to Asians and Hispanics.
- There was no significant difference between California and Orange County for each race in the lung cancer death rate.

*Age-Adjusted Death Rates for Lung Cancer per 100,000 Population for Orange County and California Residents by Race, 1997*

## How Did Orange County's Deaths for Lung Cancer Compare with California's and *Healthy People 2000*'s Objective in 1997?

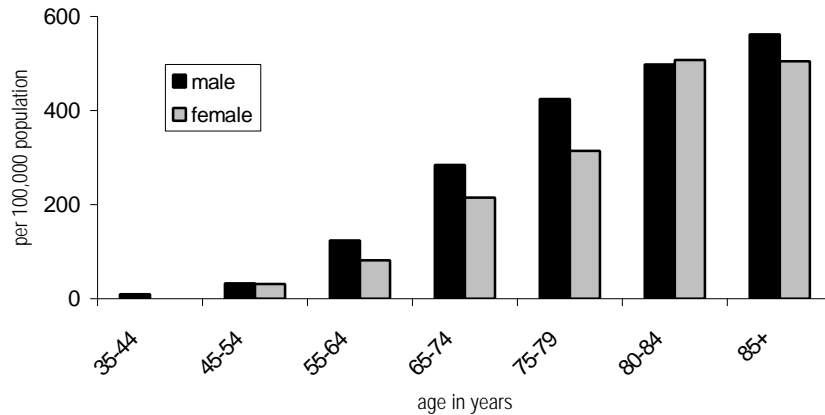
Orange County	California	<i>Healthy People 2000</i>
29.9	30.3	42

Age-adjusted to 1940 US population, per 100,000 population



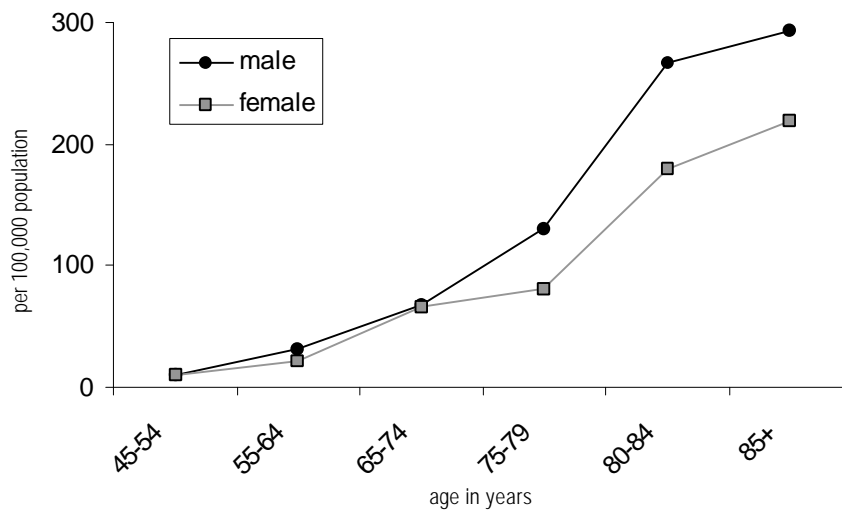
*An estimated 87% of lung cancer cases are attributable to cigarette smoking.*

# Colorectal Cancer



- Colorectal cancer was the most frequent cause of cancer-related hospitalizations.

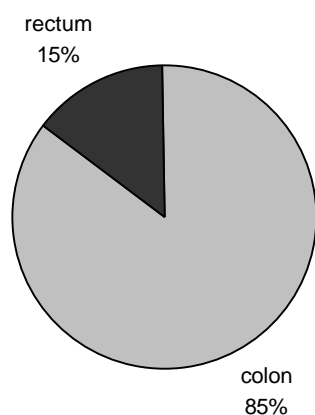
*Hospitalization Rates for Colorectal Cancer per 100,000 Population for Orange County Residents by Age and Gender, 1997*



- After age-adjusting, males were at 1.2 times greater risk for death due to colorectal cancer than females.
- The greatest risk for death due to colorectal cancer was for residents 80 years and older.

*Death Rates for Colorectal Cancer per 100,000 Population for Orange County Residents by Age and Gender, 1997*

## Colorectal Cancer



- Colon cancer accounted for eighty-five percent of all colorectal cancer deaths.

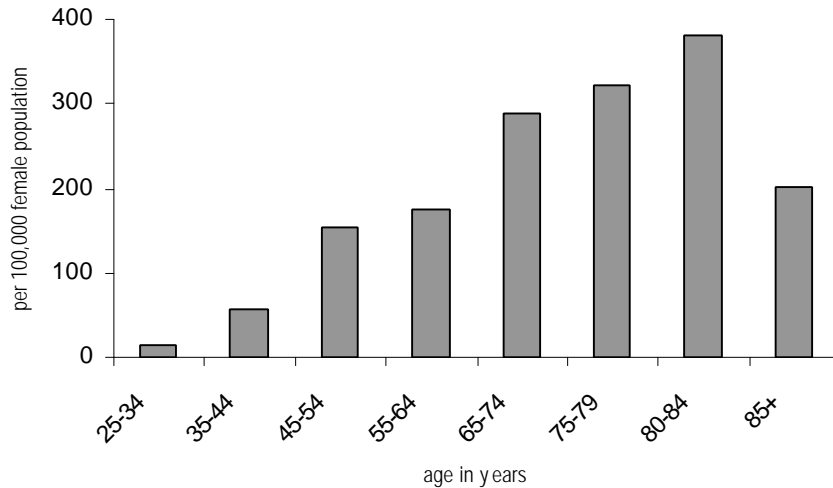
*Percentage of Deaths for Colorectal Cancer  
Represented by Colon and Rectum Cancer, 1997*

### How Did Orange County's Deaths for Colon Cancer Compare with California's and *Healthy People 2000*'s Objective in 1997?

Orange County	California	<i>Healthy People 2000</i>
10.2	10.1	13.2

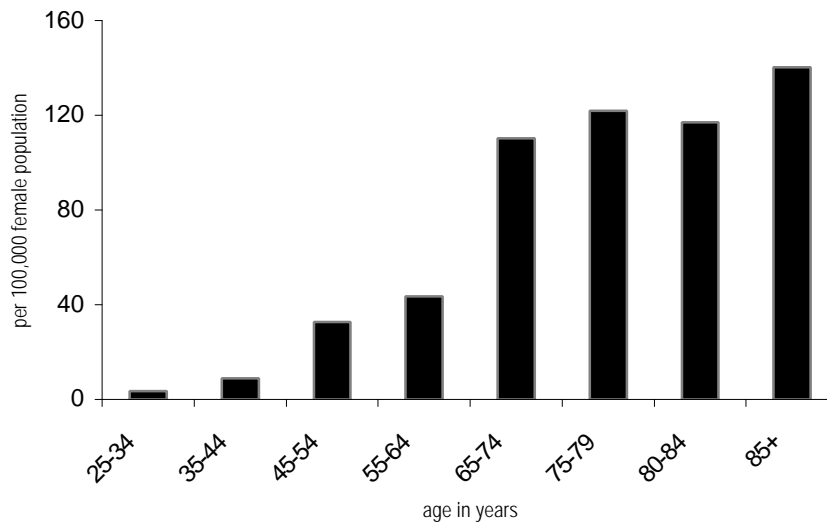
Age-adjusted to 1940 US population, per 100,000 population

## Breast Cancer



- The breast cancer hospitalization rate peaked for females ages 80-84.
- Breast cancer was the number one cause of cancer-related hospitalizations for females.

*Hospitalization Rates for Female Breast Cancer per 100,000 Female Population for Orange County Residents by Age, 1997*

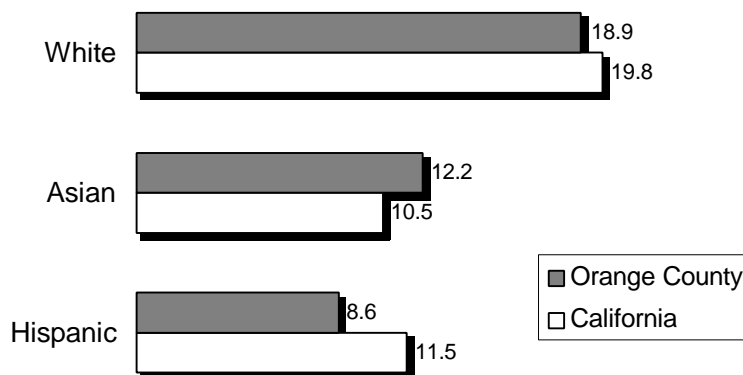


- The greatest risk for breast cancer-related death was among females 65 and older.
- Females 65-74 were at 2.4 times greater risk for breast cancer death compared to those 55-64.
- Breast cancer was the number two cause of cancer-related death for females.

*Death Rates for Female Breast Cancer per 100,000 Female Population for Orange County Residents by Age, 1997*

## Breast Cancer

*Early detection is the best protection against breast cancer. Monthly breast self-examination and annual clinical breast examination starting at age 20, followed by annual mammograms starting at age 40, should become part of every woman's healthy lifestyle.*



*Age-Adjusted Death Rates for Female Breast Cancer per 100,000 Population for Orange County and California Residents by Race, 1997*

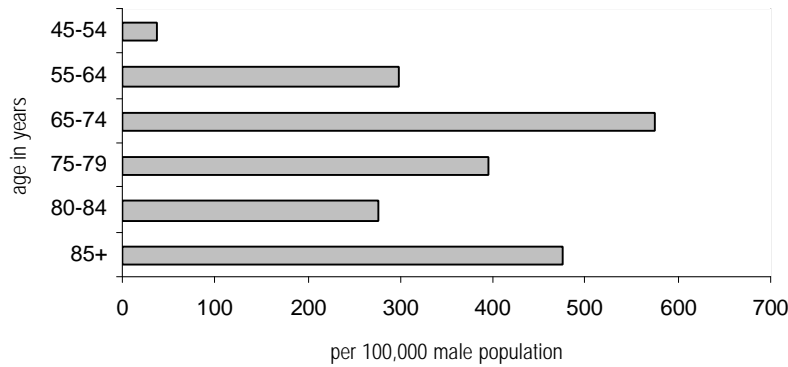
- For Orange County residents, the breast cancer-related death rate for Whites was greater than the rate for both Hispanics and Asians.
- There were no significant differences between Orange County and California breast cancer death rates for each race.

### How Did Orange County's Deaths for Breast Cancer Compare with California's and *Healthy People 2000*'s Objective in 1997?

Orange County	California	<i>Healthy People 2000</i>
17.1	18.0	20.6

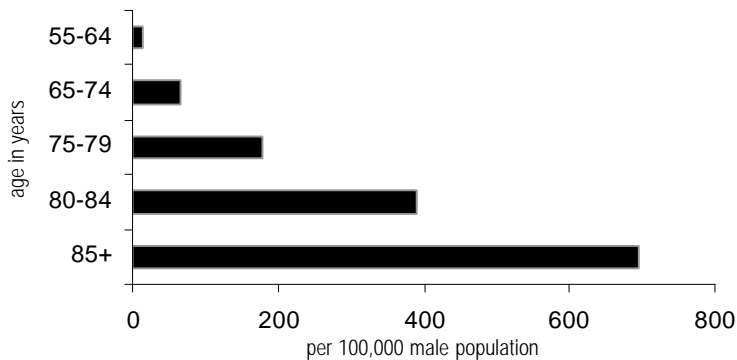
Age-adjusted to 1940 US population, per 100,000 female population

# Prostate Cancer



*Hospitalization Rates for Prostate Cancer per 100,000 Male Population for Orange County Residents by Age, 1997*

- Males 65-74 years of age had a greater hospitalization rate for prostate cancer compared to all other age groups, except for 85 and older, in which case there was no significant difference.
- For males, prostate cancer was the number one reason for a cancer-related hospitalization.



*Death Rates for Prostate Cancer per 100,000 Male Population for Orange County Residents by Age, 1997*

- The risk for death attributed to prostate cancer increased considerably as males aged.
- Fifty-two percent (52%) of prostate cancer deaths occurred among males ages 80 and older.

## How Did Orange County's Deaths for Prostate Cancer Compare with California's in 1997?

Orange County	California
11.3	12.3

Age-adjusted to 1940 US population, per 100,000 male population



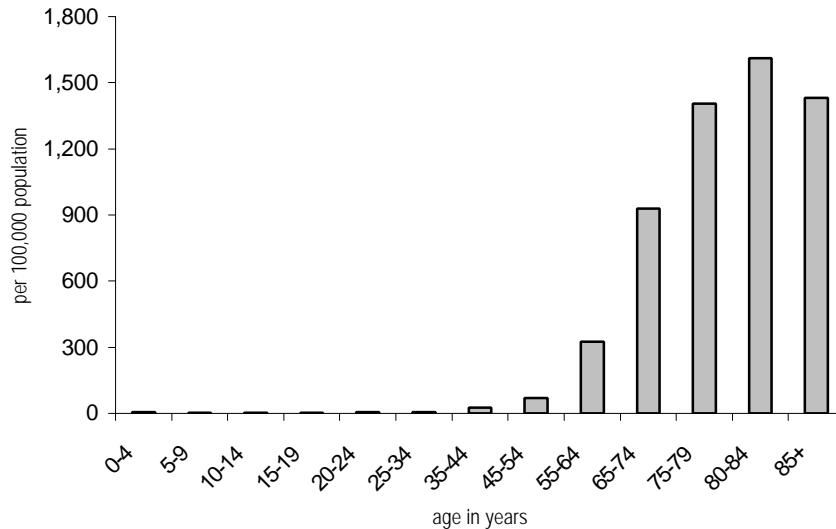
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## Chronic Lung Disease

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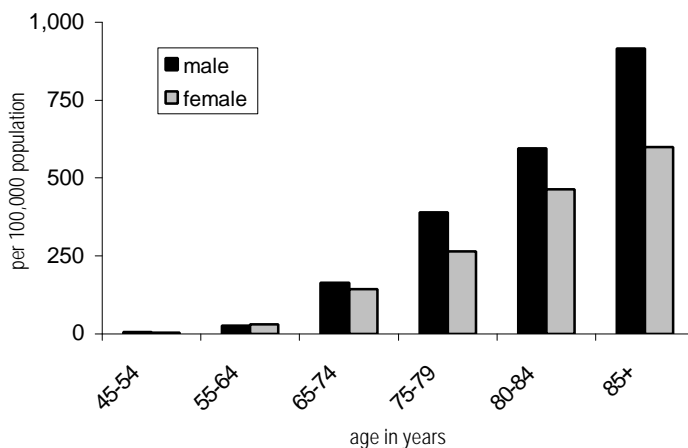


# Chronic Obstructive Pulmonary Disease (COPD)



- Persons aged 75 and older had a greater hospitalization rate for COPD compared to all other age groups.
- Forty-one percent (41%) of all COPD hospitalizations occurred among residents 75 and older.

*Hospitalization Rates for Chronic Obstructive Pulmonary Disease (COPD) per 100,000 Population for Orange County Residents by Age, 1997*



- For both males and females, death rates for COPD increased with advancing age.
- Overall, males 45 and older were at higher risk for COPD-related death than females.

*Death Rates for Chronic Obstructive Pulmonary Disease (COPD) per 100,000 Population for Orange County Residents by Age, 1997*

# Chronic Obstructive Pulmonary Disease (COPD)

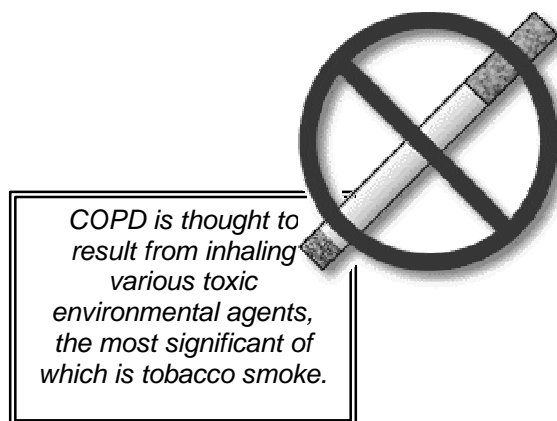
## Breakdown of Deaths Due to Chronic Obstructive Pulmonary Disease Categories for Orange County Residents by Type and Gender, 1997

Type of COPD	Male Frequency	Female Frequency
Bronchitis	7	16
Emphysema	71	71
Chronic airway obstruction, not elsewhere classified	283	367

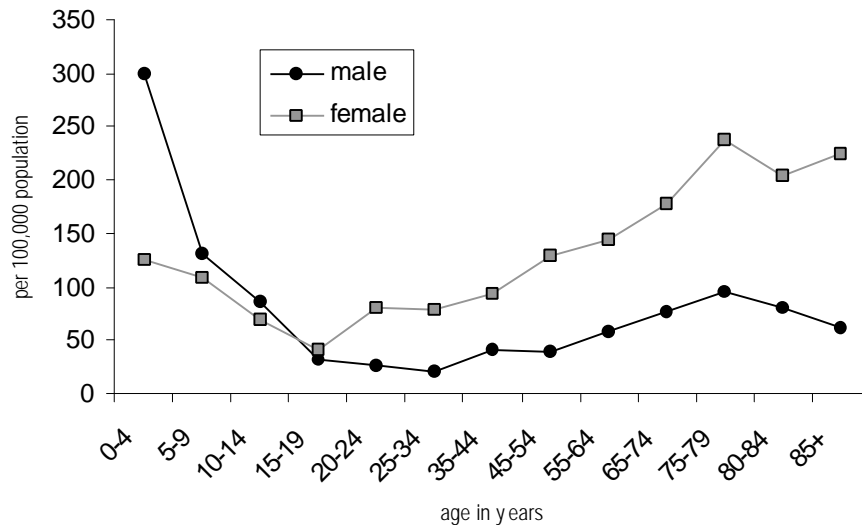
## How Did Orange County's Deaths for COPD Compare with California's in 1997?

Orange County	California
19.9	19.7

Age-adjusted to 1940 US population, per 100,000 population

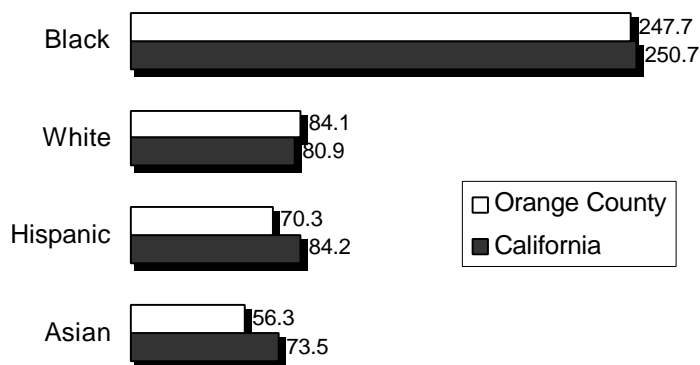


# Asthma



*Hospitalization Rates for Asthma per 100,000 Population for Orange County Residents by Age and Gender, 1997*

- Asthma was the principal cause of chronic disease hospitalization for ages 0-24.
- The asthma hospitalization rate was greater for females ages 20 and older compared to males 20 and older.
- In 1997, there were 2,439 asthma hospitalizations and 33 asthma-related deaths.



*Age-Adjusted Hospitalization Rates for Asthma per 100,000 Population for Orange County and California Residents by Race, 1997*

- In Orange County, Blacks had a 3 times higher hospitalization rate for asthma than Whites, the next highest group.
- California had a greater asthma hospitalization rate than Orange County for Hispanics and Asians, but there was no significant difference for Blacks and Whites.



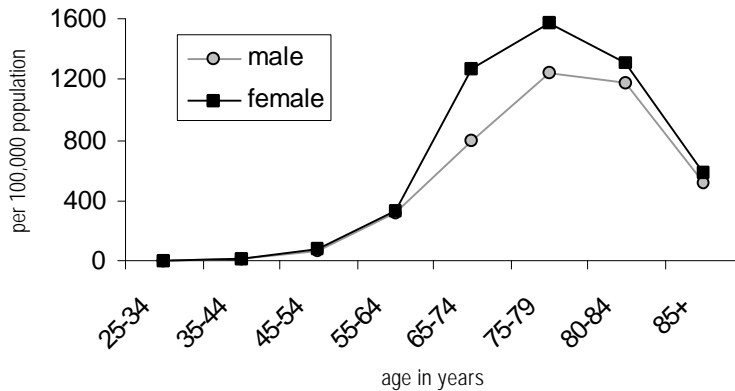
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## **Arthritis and Other Musculoskeletal Diseases**

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# Osteoarthritis



*Hospitalization Rates for Osteoarthritis per 100,000 Population for Orange County Residents by Age and Gender, 1997*

- Osteoarthritis hospitalization rates rose between ages 55-79 for both males and females.
- Osteoarthritis was higher for Orange County females than males, with a peak in hospitalization rates for ages 75-79.
- In 1997, there were 3,784 osteoarthritis hospitalizations and three (3) deaths.

## Osteoarthritis Hospitalization for Orange County Residents by Site, 1997

- Almost two-thirds (61.6%) of osteoarthritis hospitalizations were for the lower leg.

Site	Frequency	Percent
Lower leg (knee)	2,331	61.6
Pelvic region and thigh (hip)	1,245	32.9
Shoulder region	63	1.7
Ankle and foot	66	1.7
Multiple sites	39	1.0
Hand	22	0.6
Site unspecified	9	0.2
Forearm (wrist)	4	0.1
Other unspecified sites	4	0.1
Upper arm (elbow)	1	0.0
<b>Total</b>	<b>3,784</b>	<b>100.0</b>

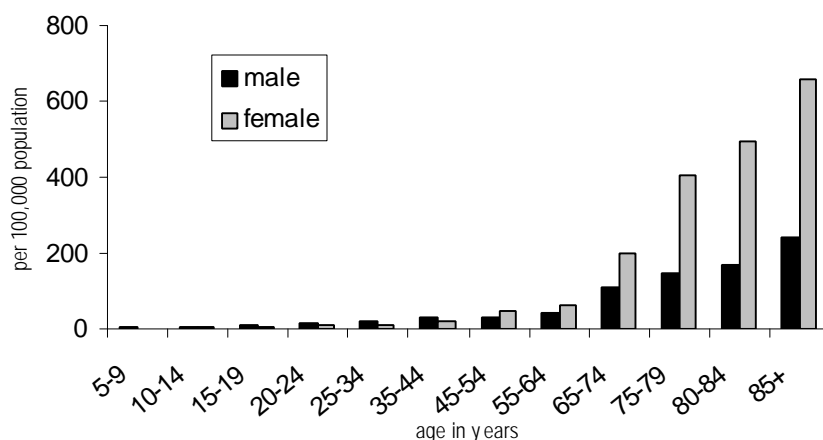
## How Did Orange County's Hospitalizations for Osteoarthritis Compare with California's in 1997?

Orange County	California
196.2	159.7

Age-adjusted to 1940 US population, per 100,000 population

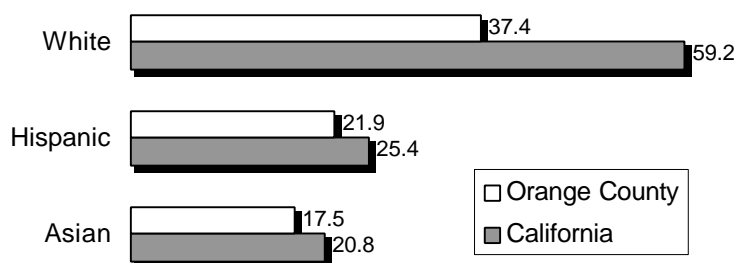
# Osteoporosis

*Prevention of osteoporosis must focus on maintaining a good diet with an adequate intake of calcium and an active lifestyle with weight-bearing physical activities.*



*Hospitalization Rates for Osteoporosis per 100,000 Population for Orange County Residents by Age and Gender, 1997*

- The hospitalization rate for osteoporosis rose steadily for females, beginning with the 55-64 age group.
- Overwhelmingly, females had a greater hospitalization rate than males for age categories 45 and older.
- In 1997, there were 1,145 osteoporosis hospitalizations and four (4) deaths.



*Hospitalization Rates for Osteoporosis per 100,000 Population for Orange County and California Residents by Race, 1997*

- In Orange County, Whites had a higher hospitalization rate than Hispanics and Asians.
- Whites in Orange County had a much lower rate of osteoporosis hospitalizations compared to California. There was no significant difference between Orange County and California rates for Hispanics and Asians.

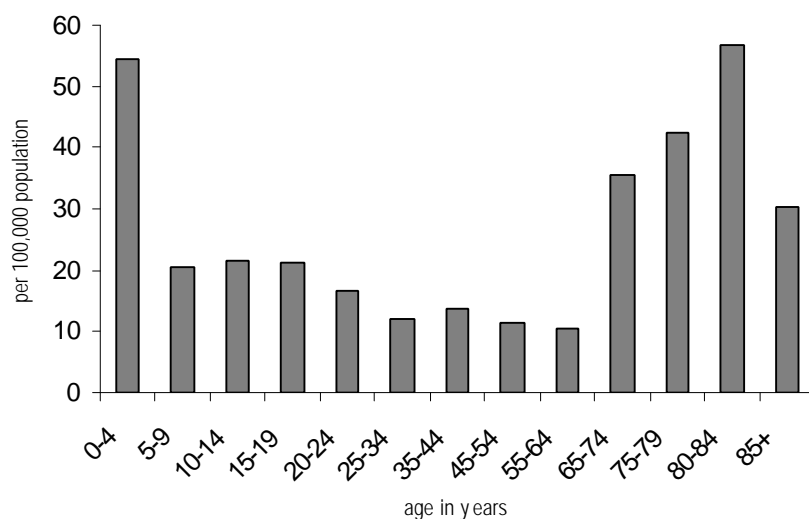
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# **Chronic Neurological Disorders**

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# Epilepsy



*Hospitalization Rates for Epilepsy per 100,000 Population for Orange County Residents by Age, 1997*

- The highest hospitalization rates for epilepsy were among those ages 0-4 and 65-84.
- Twenty-three percent (23%) of all epilepsy hospitalizations occurred in the 0-4 age group.
- In 1997, there were 549 epilepsy hospitalizations and 8 deaths.

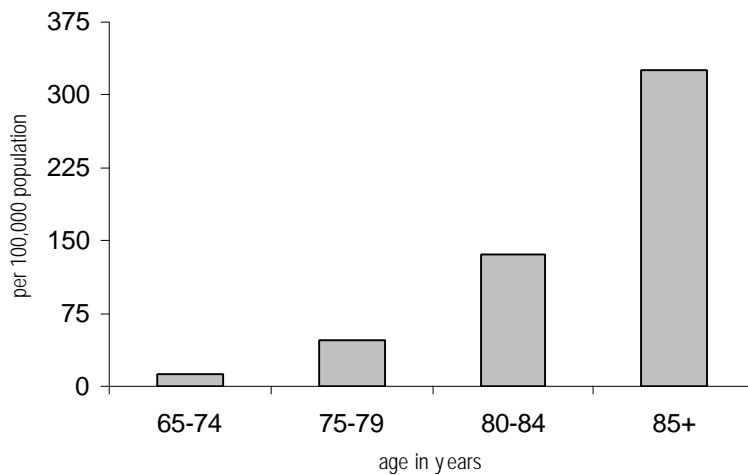
## How Did Orange County's Hospitalizations for Epilepsy Compare with California's in 1997?

Orange County	California
17.4	15.7

Age-adjusted to 1940 US population, per 100,000 population

# Alzheimer's Disease

*Alzheimer's disease is the principal dementia disorder of adults, accounting for approximately 50% to 60% of all known cases of dementia in people over 50 years of age.*



- The Alzheimer's disease death rate for ages 65-74 was 12.1 per 100,000 population, and for ages 85 and older, the rate soared to 324.7.
- For every death due to Alzheimer's disease, there was approximately one hospitalization.

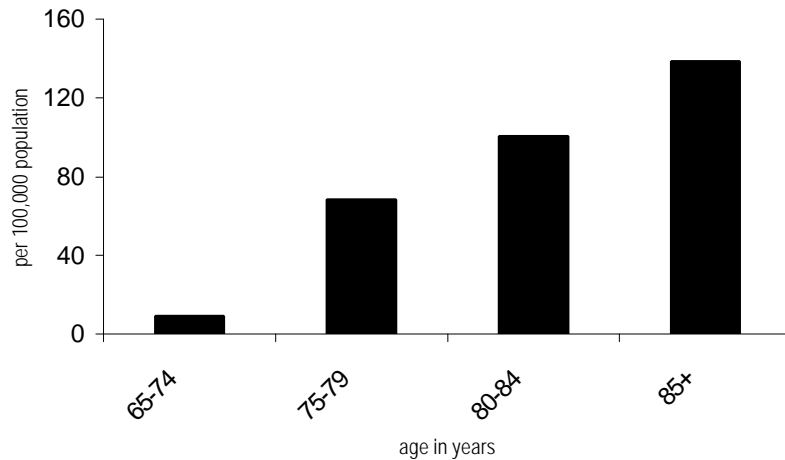
*Death Rates for Alzheimer's Disease per 100,000 Population for Orange County Residents by Age, 1997*

## How Did Orange County's Deaths for Alzheimer's Disease Compare with California's in 1997?

Orange County	California
3.6	2.4

Age-adjusted to 1940 US population, per 100,000 population

## Parkinson's Disease



- Orange County residents 85 and older were at 15 times greater risk for death due to Parkinson's disease compared to residents ages 65-74.
- In 1997, for every Parkinson's disease death, there was one Parkinson's disease hospitalization.

*Death Rates for Parkinson's Disease per 100,000 Population for Orange County Residents by Age, 1997*

### How Did Orange County's Deaths for Parkinson's Disease Compare with California's in 1997?

Orange County	California
2.5	1.7

Age-adjusted to 1940 US population, per 100,000 population



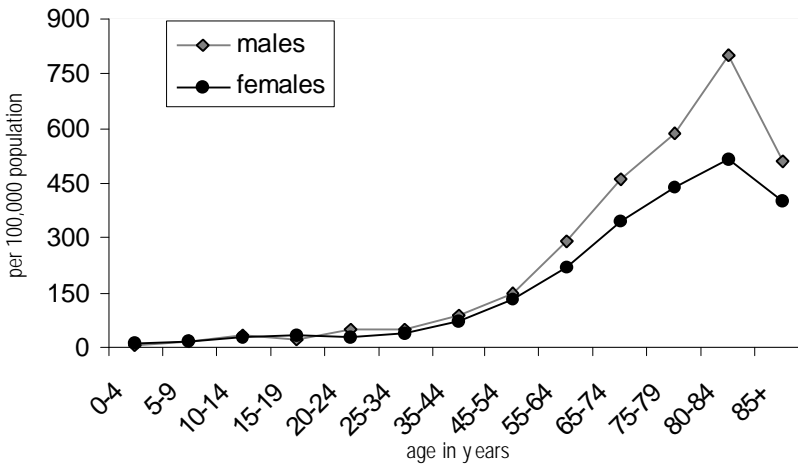
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## Other Chronic Diseases

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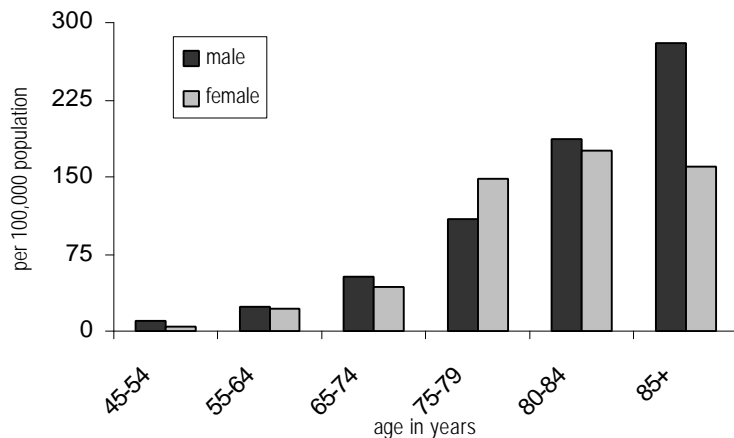


# Diabetes



*Hospitalization Rates for Diabetes per 100,000 Population for Orange County Residents by Age and Gender, 1997*

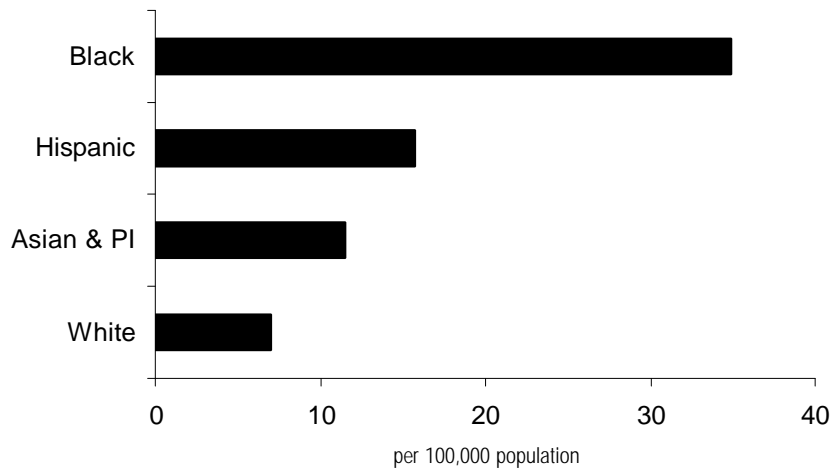
- The diabetes hospitalization rate was greater for males ages 55-84 than females in the same age group.
- Males did not have a significantly greater hospitalization rate compared to females for ages 85 and older.



*Death Rates for Diabetes per 100,000 Population for Orange County Residents by Age and Gender, 1997*

- For ages 85 and older, males were at 1.8 times greater risk for diabetes-related death than females.
- There was no significant difference in death rates between males and females for any age category except 85 and older.

# Diabetes



- Blacks were at greatest risk for a diabetes-related death compared to all other racial groups.
- The death rate for diabetes was not significantly different between Hispanics and Asians.

*Death Rates for Diabetes per 100,000 Population for Orange County Residents by Race, 1997*

## How Did Orange County's Deaths for Diabetes Compare with California's and *Healthy People 2000*'s Objective in 1997?

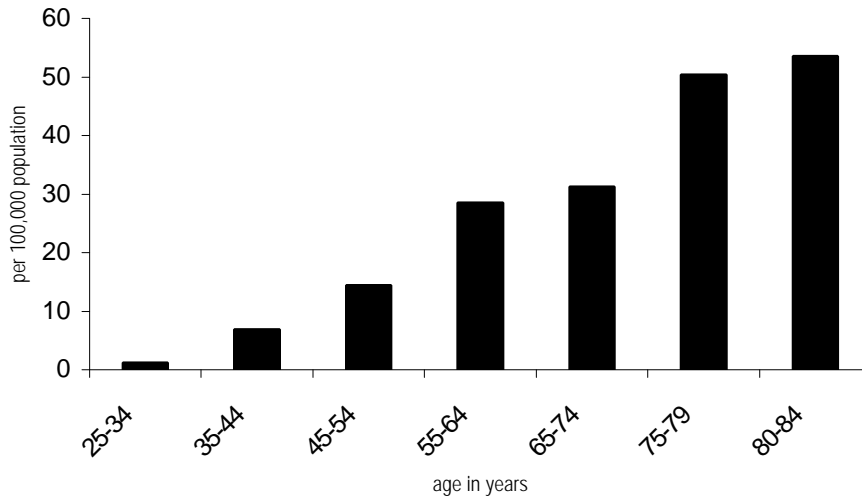
Orange County	California	<i>Healthy People 2000</i>
8.6	11.6	34.0

Age-adjusted to 1940 US population, per 100,000 population

*Less active and more obese children are at greater risk of developing type 2 diabetes.*

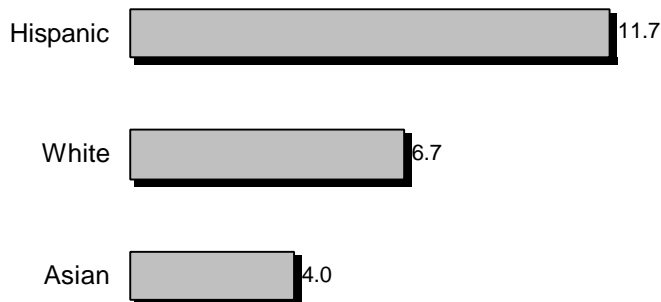


# Cirrhosis



- Orange County residents ages 75-84 were at greatest risk for cirrhosis-related death.
- There were 234 cirrhosis-related deaths and 915 cirrhosis hospitalizations.

*Death Rates for Cirrhosis per 100,000 Population for Orange County Residents by Age, 1997*



- After age-adjusting, Hispanics were at 2.9 times greater risk for cirrhosis-related death compared to Asians — and at 1.7 times greater risk compared to Whites.

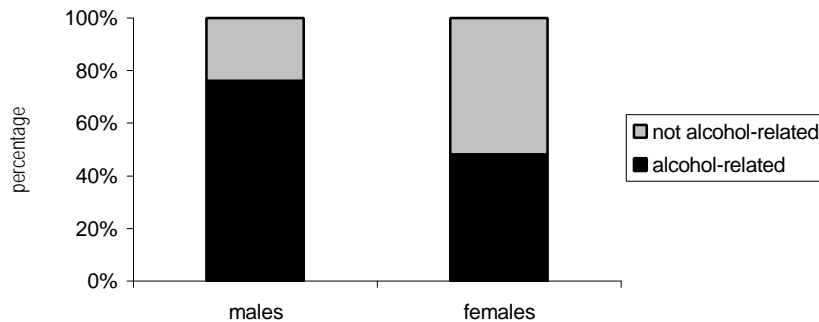
*Age-Adjusted Death Rates for Cirrhosis per 100,000 Population for Orange County Residents by Gender, 1997*

# Cirrhosis



- After age-adjusting, males were at 2.5 times greater risk for cirrhosis-related death compared to females.

*Age-Adjusted Death Rates for Cirrhosis per 100,000 Population for Orange County Residents by Gender, 1997*



- Alcohol abuse was the principal risk factor (76%) for all male deaths due to cirrhosis.
- For females, almost half (48%) of all cirrhosis deaths were related to alcohol use.

*Percentage of Deaths for Cirrhosis That Are Alcohol-Related and Not Alcohol-Related for Orange County Residents by Gender, 1997*

## How Did Orange County's Deaths for Cirrhosis Compare with California's and *Healthy People 2000*'s Objective in 1997?

Orange County	California	<i>Healthy People 2000</i>
7.5	9.2	6.0

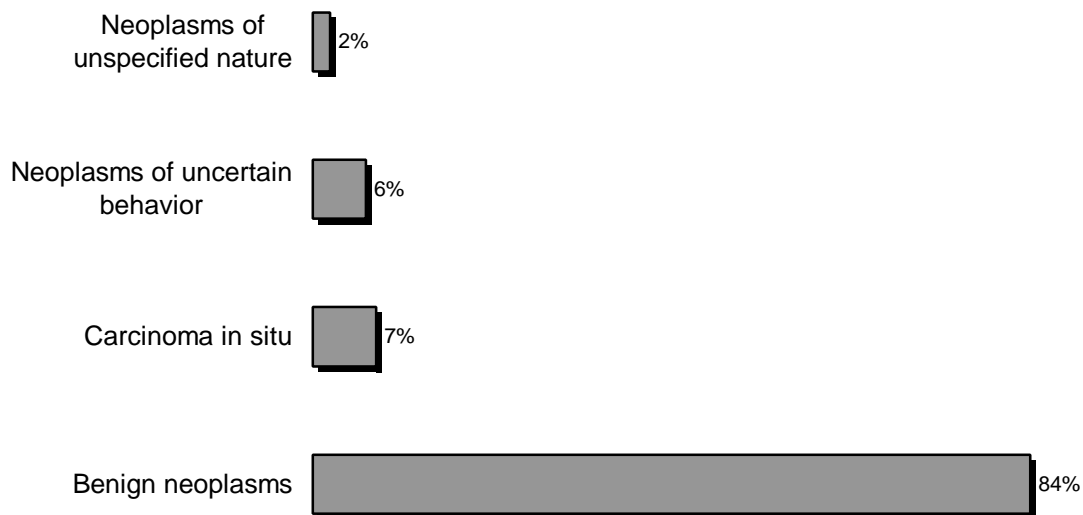
Age-adjusted to 1940 US population, per 100,000 population

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## Benign Neoplasms, Carcinoma In Situ, and Other Neoplasms

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- In the category “benign neoplasms, carcinoma in situ, and other neoplasms,” benign neoplasms represented 84% of hospitalizations.
- There were 4,420 hospitalizations and 32 deaths due to benign neoplasms, carcinoma in situ, and other neoplasms.



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*Percentage of Hospitalizations for Benign Neoplasms, Carcinoma In Situ, and Other Neoplasms for Orange County Residents, 1997*

## Benign Neoplasms

- Fifty-nine percent (59%) of hospitalizations for benign neoplasms\* were for uterine leiomyoma.

### Types of Hospitalized Benign Neoplasms for Orange County Residents, 1997

Primary Diagnosis	Frequency	Percent
Uterine leiomyoma	2,209	59.3
Benign neoplasm of ovary	398	10.7
Benign neoplasm of other parts of digestive system	280	7.5
Benign neoplasm of brain and other parts of nervous system	198	5.3
Benign neoplasm of other endocrine glands and related structures	154	4.1
Benign neoplasm of thyroid glands	147	3.9
Benign neoplasms of lip, oral cavity, and pharynx	83	2.2
Hemangioma, and lymphangioma, any site	49	1.3
Benign neoplasm of bone and articular cartilage	40	1.1
Lipoma	37	1.0
Benign neoplasm of respiratory and intrathoracic organs	30	0.8
Other benign neoplasm of uterus	27	0.7
Benign neoplasm of other female genital organs	21	0.6
Other benign neoplasm of connective and other soft tissue	20	0.5
Benign neoplasm of kidney and other urinary organs	17	0.5
Benign neoplasm of breast	7	0.2
Benign neoplasm of skin	3	0.1
Benign neoplasm of male genital organs	2	0.1
Benign neoplasm of other and unspecified sites	2	0.1
<b>Total</b>	<b>3,724</b>	<b>100.0</b>

\* Non-cancerous, abnormal growth of cells or tissue.

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## Carcinoma In Situ

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- The greatest percentages of hospitalization for carcinoma in situ\* were for the uterine cervix (44.8%) and the breast (38.5%).

### Types of Hospitalized Carcinoma in Situ for Orange County Residents, 1997

Primary Diagnosis	Frequency	Percent
Carcinoma in situ of cervix uteri	148	44.8
Carcinoma in situ of breast	127	38.5
Carcinoma in situ of genitourinary system	28	8.5
Carcinoma in situ of digestive organs	24	7.3
Carcinoma in situ of respiratory system	1	0.3
Carcinoma in situ of skin	1	0.3
Carcinoma in situ of other and unspecified sites	1	0.3
<b>Total</b>	<b>330</b>	<b>100.0</b>

\* Cancer cells that are localized and have not spread to other areas.



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## ***Healthy People 2000***

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## Healthy People 2000

### How Well Did Orange County Do in Meeting the *Healthy People 2000's* Health Status Objectives in 1997?

Health Status Objectives	2000 Objective	1997 Orange County
Cancer Deaths	130	110.1
Lung Cancer Deaths	42	29.9
Breast Cancer Deaths (females)	20.6	17.1
Colorectal Cancer Deaths	13.2	10.2
Cervical Cancer Deaths (females)	1.3	2.1
Diabetes Deaths	34	8.6
Coronary Heart Disease Deaths	100	101.1
<i>Blacks</i>	115	159.1
Stroke Deaths	20	26.0
Cirrhosis Deaths	6	7.5
Chronic Obstructive Pulmonary Disease Deaths	25	21.1

Per 100,000

**Note:** For comparison with *Healthy People 2000*, COPD deaths include chronic bronchitis, emphysema, and other chronic obstructive pulmonary diseases and allied conditions, as well as asthma.

**Note:** Shaded rows indicate that Orange County has *not* yet met the *Healthy People 2000* objective for that chronic disease; conversely, rows that are not shaded indicate that Orange County has already met the *Healthy People 2000* objective.

- Orange County met the *Healthy People 2000* objectives for more than half of the chronic disease targets for death during 1997 (see the rows that are *not* shaded).
- Orange County met or exceeded the *Healthy People 2000* goals for most types of cancer-related deaths, with the exception of cervical cancer.
- The diabetes-related death rate in Orange County was considerably lower than the national goal set in *Healthy People 2000*.
- Orange County did not meet *Healthy People 2000* target rates for coronary heart disease for Blacks.
- The stroke-related death rate for Orange County residents was higher than the *Healthy People 2000* objective.
- Death rates due to cirrhosis were only slightly higher than the *Healthy People 2000* objective.



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## **Hospitalization Cost and Length of Stay**

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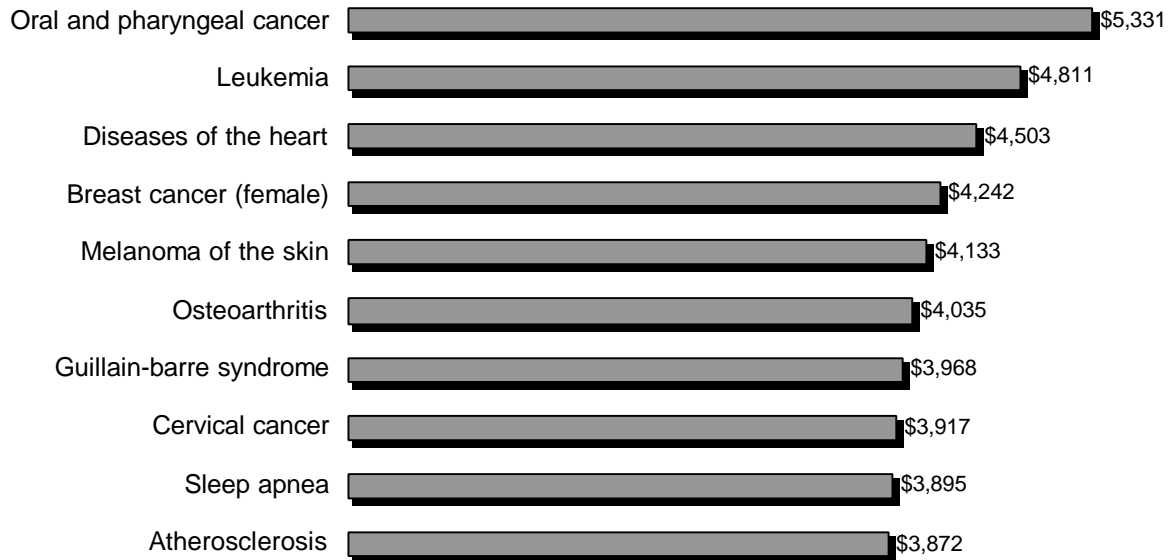


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## Hospitalization Cost

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- Cancer-related hospitalizations were responsible for five of the top 10 greatest per day hospitalization costs.
- Hospitalizations for oral and pharyngeal cancer had the highest per day costs than other chronic diseases also requiring hospitalization.



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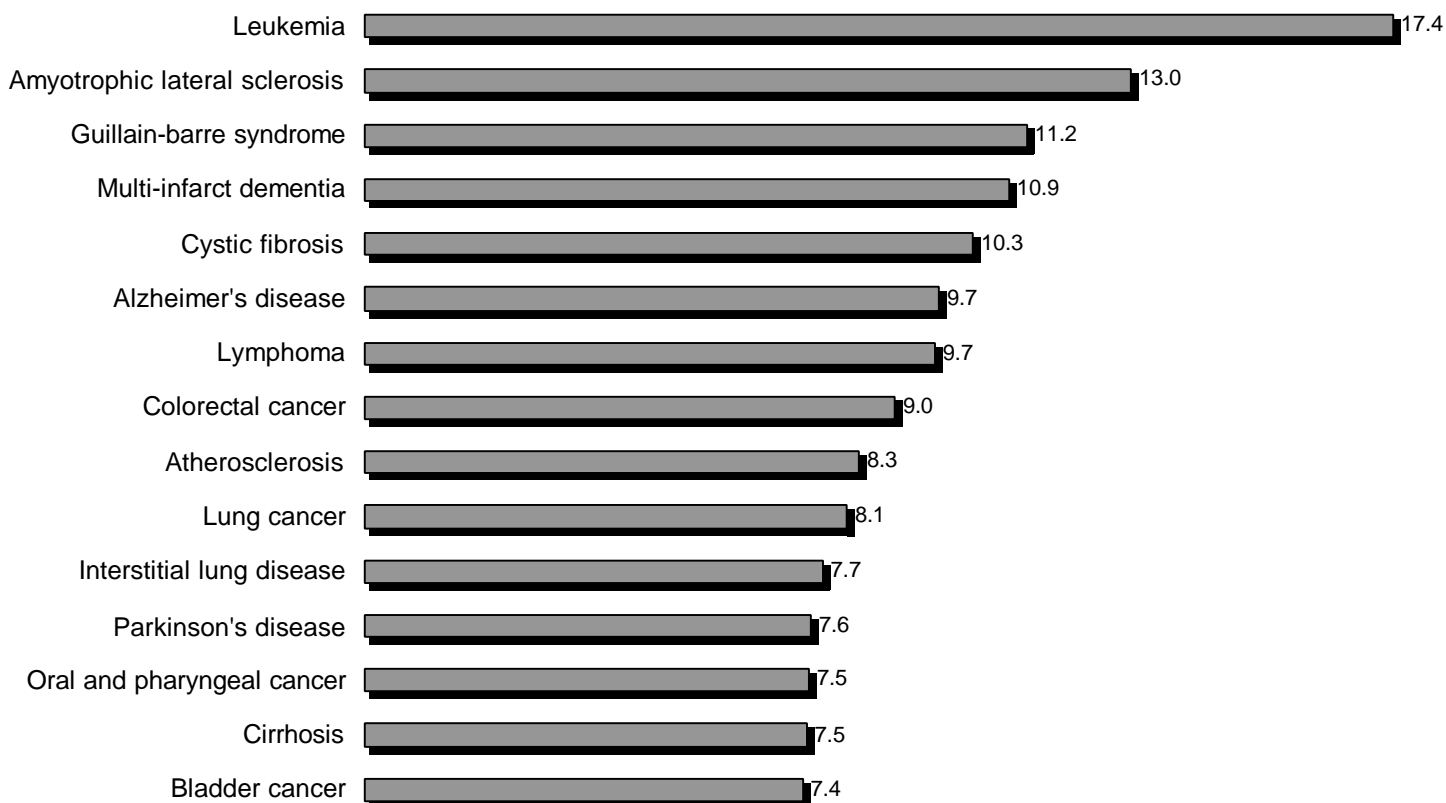
*Top 10 Greatest per Day Hospitalization Costs for Chronic Disease for Orange County Residents, 1997*

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## Hospitalization Length of Stay

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- In 1997, Orange County residents with leukemia spent on average more days in the hospital than residents with other chronic diseases.




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*Chronic Disease Hospitalizations Resulting in a Mean Length of Stay Greater than One Week, 1997*

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# **Appendix A**

## **Data Set Information**

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## Data Set Information

The following five data sets were used for this report:

1. County of Orange, Health Care Agency, 1997 Death File.
2. California Office of Statewide Health Planning and Development (OSHPD) Hospital Discharge Data set, 1997
3. The Center for Demographic Research, California State University, Fullerton, Population Estimates, 1997
4. California Department of Health Services, Death Records, 1997
5. Department of Finance, January 1998 Population Estimates

### County of Orange, Health Care Agency, 1997 Death Files

- The County of Orange, Health Care Agency, 1997 Death File were used for all Orange County death calculations in this report. The data was collected from death certificates and represents the underlying cause of death. This data set was used to describe persons who died as a result of a chronic disease.
- The chronic disease categories were developed using ICD-9 code recommendations from *Chronic Disease Epidemiology and Control*<sup>1</sup>, *Healthy People 2000*<sup>2</sup>, and the Center of Disease Control and Prevention's list of leading causes of death.
- **Exclusions:** Non-Orange County residents

### California Office of Statewide Health Planning and Development (OSHPD) 1997 Hospital Discharge Dataset

- The California Office of Statewide Health Planning and Development (OSHPD) 1997 Hospital Discharge Data Set was used for all Orange County and California hospitalization calculations in this report. This data set contains information on patients discharged from all non-federal, acute care hospitals in California. This data set was used to describe persons who were hospitalized for a chronic disease.
- Only primary diagnoses were used. Some patients may have had multiple hospitalizations for the same chronic disease; therefore, the numerator in the hospitalization rates represents the episode, not the person.

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<sup>1</sup> Newschaffer, C. J., Brownson, C. A., & Dusenbury, L. J. (1998). Cardiovascular disease. In R. C. Brownson, P. A. Remington, J. R. Davis (Eds.) *Chronic Disease and Epidemiology and Control*. (2<sup>nd</sup> ed.). (pp. 297-334). Washington, DC: American Public Health Association.

<sup>2</sup> U.S. Department of Health and Human Services. (1990). *Healthy People 2000: National Health Promotion and Disease Objectives*. (DHHS Publication No. (PHS) 91-50212). Washington, DC: U.S. Government Printing Office.

- The chronic disease categories were developed using ICD-9 code recommendations from *Chronic Disease Epidemiology and Control*, *Healthy People 2000*, and the Center of Disease Control and Prevention's list of leading causes of death.
- **Exclusions:** Non-Orange County residents hospitalized in Orange County, Orange /County residents hospitalized elsewhere, and persons who died during their hospital stay
- **Hospital Charges:** Hospital charges for 1997 included all charges for services rendered during the length of stay for patient care at the facility, based on the hospital's full, established rate. The hospital charge is not necessarily the amount an insurance company would pay. In addition, hospital charges do not include physician fees. Therefore, hospital cost information may underestimate the medical bill and overestimate the amount paid to the hospital. Moreover, Kaiser Permanente hospitals are exempt from reporting hospital charges. Also, for some hospitalizations, there were no total charges. Therefore, for Kaiser hospitals and hospitalizations with no charges, charges were imputed.

### **The Center for Demographic Research, California State University, Fullerton, Population Estimates**

- Orange County denominator data was provided by the Center for Demographic Research, California State University, Fullerton. For all 1997 calculations in this report, 1997 Orange County population estimates were used.

### **California Department of Health Services, Death Records, 1997 and Department of Finance, 1/98 Population Estimates**

- The death rate program (DRATE) was used to calculate all California death rates. This program uses data from the California Department of Health Services, Death Records to determine numerator data and the Department of Finance, 1/98 Population Estimates for denominator data. The Office of Health Information and Research provided DRATE.

### **Other Data Information**

- When comparisons were made to California and *Healthy People 2000*, rates were age-adjusted to the 1940 United States population.
- Because chronic diseases primarily affect older populations and because of the different age structures between gender and race in Orange County, it was necessary to age-adjust all race and gender comparisons.

- Age-adjustment was calculated using the direct method.
- Rates were not calculated for numerators less than 5.
- If the number of hospitalizations or deaths was less than 5 for a particular age category, race, or gender, that age category, race, or gender was excluded from the number.
- If a population is stated as having a greater rate or a greater risk compared to another population, the difference is statistically significantly ( $p < 0.05$ ). Significance testing was done using confidence intervals or chi-square.



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## **Appendix B**

# **Chronic Disease Hospitalizations**

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**Number of Chronic Disease Hospitalizations for Orange County Residents by  
Primary Diagnosis, Age, and Gender, 1997**

Primary Diagnosis	Gender	Total	0-4	5-9	10-14	15-19	20-24	25-34	35-44	45-54	55-64	65-74	75-79	80-84	85+
<b>Cardiovascular Disease</b>															
Atherosclerosis	M	391	0	0	0	0	0	1	11	28	86	111	69	42	43
	F	356	0	0	0	0	0	2	4	21	44	115	68	41	61
Stroke	M	3,503	6	5	4	4	7	24	107	252	547	1,026	668	461	392
	F	4,261	6	5	1	7	8	42	86	197	434	936	770	768	1,001
Diseases of the heart	M	15,586	43	15	12	21	32	178	750	2,087	3,226	4,488	2,181	1,426	1,127
	F	12,598	17	9	15	10	28	127	305	891	1,528	3,162	2,127	1,966	2,413
Hypertension with or without renal disease	M	185	1	3	0	1	6	15	45	28	37	25	11	6	7
	F	228	1	1	0	1	1	4	26	39	35	46	30	21	23
<b>Cancer</b>															
Bladder cancer	M	268	0	0	0	0	0	0	5	22	36	82	49	50	24
	F	87	0	0	0	0	0	1	3	3	14	25	12	12	17
Breast cancer (female)	F	1,041	0	0	0	0	1	33	127	258	181	225	95	78	43
Cervical cancer	F	157	0	0	1	0	0	25	40	36	31	15	4	2	3
Colorectal cancer	M	578	0	0	0	0	1	11	23	55	123	178	85	56	46
	F	649	0	0	0	0	0	10	29	53	84	168	93	104	108
Leukemia	M	189	20	11	7	15	7	10	16	18	33	21	12	9	10
	F	163	13	17	13	5	3	12	10	8	30	20	14	9	9
Lung cancer	M	558	0	0	0	0	0	3	10	46	113	205	118	44	19
	F	518	0	0	0	0	0	4	4	43	113	190	85	48	31
Lymphoma	M	270	6	4	3	10	5	24	27	43	48	49	17	19	15
	F	214	2	3	2	2	5	14	29	34	30	36	26	14	17
Melanoma of the skin	M	17	0	0	0	0	0	0	3	4	3	5	0	1	1
	F	22	0	0	0	0	1	2	5	1	3	4	0	2	4
Oral and pharyngeal cancer	M	133	1	0	1	0	0	2	8	20	43	40	9	2	7
	F	78	0	0	3	0	0	1	2	12	25	23	5	3	4
Prostate cancer	M	869	0	0	0	0	0	0	2	61	297	360	79	31	39

All (continued)

Primary Diagnosis	Gender	Total	0-4	5-9	10-14	15-19	20-24	25-34	35-44	45-54	55-64	65-74	75-79	80-84	85+
<b>Chronic Lung Diseases</b>															
Asbestosis	M	7	0	0	0	0	0	0	0	0	1	1	3	1	1
Asthma	M	984	365	140	76	26	24	53	97	64	58	48	19	9	5
	F	1,455	143	110	58	32	64	176	209	216	148	139	70	42	48
Chronic obstructive pulmonary disease	M	1,569	9	5	4	4	2	10	52	89	273	562	262	169	128
	F	2,442	6	2	1	3	6	16	62	144	385	744	435	343	295
Cystic fibrosis	M	33	5	6	11	3	3	5	0	0	0	0	0	0	0
	F	40	9	5	11	4	1	3	6	1	0	0	0	0	0
Interstitial lung disease	M	116	4	0	0	0	0	11	3	5	15	35	14	14	15
	F	119	0	0	1	1	0	3	2	14	12	34	18	15	19
Sleep apnea	M	31	1	0	0	0	0	6	2	9	6	7	0	0	0
	F	9	0	0	0	0	0	0	3	3	1	2	0	0	0
<b>Arthritis and Other Musculoskeletal Diseases</b>															
Gout	M	29	0	0	0	0	0	1	3	4	5	8	6	1	1
	F	12	0	0	0	0	0	1	1	0	1	2	3	1	3
Osteoarthritis	M	1,415	0	0	0	0	1	13	46	115	317	499	250	132	42
	F	2,369	0	0	0	0	3	13	31	130	344	988	466	269	125
Osteoporosis	M	388	3	6	7	9	13	48	72	54	40	68	29	19	20
	F	757	2	2	5	5	7	29	49	78	63	155	120	101	141
Rheumatoid arthritis	M	58	2	3	3	0	4	4	5	1	13	14	7	2	0
	F	206	2	2	3	3	6	10	16	32	29	55	29	13	6
<b>Chronic Neurologic Disorders</b>															
Alzheimer's disease	M	83	0	0	0	0	0	0	0	0	4	24	16	22	17
	F	95	0	0	0	0	0	0	0	0	1	22	19	21	32
Amyotrophic lateral sclerosis	M	13	0	0	0	0	0	0	0	4	2	5	2	0	0
	F	7	0	0	0	0	0	0	0	0	1	2	2	0	2
Carpal tunnel syndrome	M	5	0	0	0	0	0	0	1	3	1	0	0	0	0
	F	9	0	0	0	0	0	2	2	2	2	1	0	0	0
Epilepsy	M	301	75	20	22	23	23	33	24	20	10	29	15	5	2
	F	248	53	23	15	11	5	25	40	18	11	21	6	13	7
Guillain-barre syndrome	M	33	2	2	0	2	3	4	5	2	3	7	3	0	0
	F	36	3	3	0	5	0	5	3	4	2	7	1	3	0

All (continued)

Primary Diagnosis	Gender	Total	0-4	5-9	10-14	15-19	20-24	25-34	35-44	45-54	55-64	65-74	75-79	80-84	85+
Migraine headaches	M	30	0	1	0	0	5	5	7	7	2	3			
	F	148	0	1	1	4	11	36	34	26	17	10	2	4	2
Multi-infarct dementia	M	34	0	0	0	0	0	0	0	0	2	12	4	8	8
	F	29	0	0	0	0	0	1	0	0	0	5	9	7	7
Multiple sclerosis	M	19	0	0	0	0	0	2	6	8	1	0	2	0	0
	F	78	0	0	2	0	1	6	24	30	10	4	1	0	0
Muscle contraction headache	M	5	0	0	0	0	0	1	0	1	3	0			
	F	10	0	0	0	0	0	6	2	1	0	0	0	1	0
Parkinson's disease	M	72	0	0	0	0	0	0	1	3	8	25	16	11	8
	F	51	0	0	0	0	0	0	0	1	4	11	13	13	9
<b>Other Chronic Diseases</b>															
Benign neoplasms, carcinoma in situ, and other neoplasms	M	645	16	7	9	15	14	50	66	87	118	143	60	31	29
	F	3,775	17	9	14	26	49	330	1,217	1,251	324	299	110	69	60
Cirrhosis	M	573	0	0	1	1	1	43	133	142	117	92	25	15	3
	F	342	1	0	1	1	4	19	61	66	71	61	38	15	4
Diabetes	M	1,517	7	16	27	20	42	124	204	248	290	289	118	90	42
	F	1,381	14	14	25	25	23	89	156	218	225	270	130	106	86
Hyperplasia of prostate	M	885	0	0	0	0	0	0	0	33	156	368	156	102	70
<b>Total</b>	<b>M</b>	<b>31,394</b>	<b>566</b>	<b>244</b>	<b>187</b>	<b>154</b>	<b>193</b>	<b>681</b>	<b>1,734</b>	<b>3,563</b>	<b>6,038</b>	<b>8,830</b>	<b>4,305</b>	<b>2,778</b>	<b>2,121</b>
	<b>F</b>	<b>33,991</b>	<b>289</b>	<b>206</b>	<b>172</b>	<b>145</b>	<b>227</b>	<b>1,047</b>	<b>2,588</b>	<b>3,831</b>	<b>4,203</b>	<b>7,797</b>	<b>4,801</b>	<b>4,104</b>	<b>4,581</b>
	<b>All</b>	<b>65,385</b>	<b>855</b>	<b>450</b>	<b>359</b>	<b>299</b>	<b>420</b>	<b>1,728</b>	<b>4,322</b>	<b>7,394</b>	<b>10,241</b>	<b>16,627</b>	<b>9,106</b>	<b>6,882</b>	<b>6,702</b>

<b>Orange County</b>	M	1,356,920	121,726	107,085	89,098	83,357	88,743	259,963	239,646	165,474	99,646	62,705	20,035	11,247	8,195
<b>Population, 1997</b>	F	1,320,755	113,858	100,619	83,924	78,057	79,590	221,721	222,178	168,037	103,315	78,014	29,561	20,512	21,369

**Number of Chronic Disease Hospitalizations for Asian and Pacific Islander Orange County Residents  
by Primary Diagnosis, Age, and Gender, 1997**

Primary Diagnosis	Gender	Total	0-4	5-9	10-14	15-19	20-24	25-34	35-44	45-54	55-64	65-74	75-79	80-84	85+
<b>Cardiovascular Disease</b>															
Atherosclerosis	M	16	0	0	0	0	0	0	0	1	2	4	4	4	1
	F	13	0	0	0	0	0	0	0	3	2	2	0	3	3
Stroke	M	275	0	0	0	0	0	2	10	25	50	93	46	28	21
	F	226	0	0	1	0	1	3	8	19	27	69	49	24	25
Diseases of the heart	M	914	1	6	1	1	2	14	71	151	200	250	117	60	40
	F	635	0	0	0	0	8	7	20	63	89	188	98	95	67
Hypertension with or without renal disease	M	17	0	0	0	0	0	0	2	6	3	2	1	2	1
	F	21	0	0	0	0	0	0	4	5	2	5	3	1	1
<b>Cancer</b>															
Bladder cancer	M	18	0	0	0	0	0	0	2	4	1	1	5	5	0
	F	2	0	0	0	0	0	0	0	0	1	0	0	0	1
Breast cancer (female)	F	59	0	0	0	0	0	1	12	19	13	10	3	0	1
Cervical cancer	F	19	0	0	0	0	0	2	3	5	5	4	0	0	0
Colorectal cancer	M	54	0	0	0	0	0	6	5	7	15	10	6	5	0
	F	49	0	0	0	0	0	0	3	9	12	12	4	6	3
Leukemia	M	9	2	1	1	1	0	0	3	0	0	1	0	0	0
	F	15	2	2	0	1	2	5	0	0	2	0	0	0	1
Lung cancer	M	41	0	0	0	0	0	0	0	6	10	17	6	2	0
	F	25	0	0	0	0	0	1	0	3	4	8	7	2	0
Lymphoma	M	16	0	0	0	1	0	2	0	3	2	4	2	0	2
	F	15	0	0	0	0	2	0	0	7	0	1	3	1	1
Melanoma of the skin	M	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	F	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Oral and pharyngeal cancer	M	7	0	0	0	0	0	0	1	0	2	3	1	0	0
	F	4	0	0	0	0	0	0	0	1	2	0	0	0	1
Prostate cancer	M	41	0	0	0	0	0	0	0	0	4	21	8	2	6

Asian and Pacific Islander (continued)

Primary Diagnosis	Gender	Total	0-4	5-9	10-14	15-19	20-24	25-34	35-44	45-54	55-64	65-74	75-79	80-84	85+
<b>Chronic Lung Diseases</b>															
Asbestosis	M	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Asthma	M	78	19	8	7	0	2	2	5	13	11	5	4	1	1
	F	79	8	7	4	0	4	5	5	8	16	11	6	1	4
Chronic obstructive pulmonary disease	M	107	0	1	0	1	0	0	2	7	14	35	16	16	15
	F	74	1	1	0	0	0	1	1	1	6	34	11	15	3
Cystic fibrosis	M	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	F	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Interstitial lung disease	M	8	0	0	0	0	0	0	0	0	3	3	1	1	0
	F	11	0	0	0	0	0	0	0	3	0	4	3	1	0
Sleep apnea	M	2	1	0	0	0	0	0	0	0	0	1	0	0	0
	F	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>Arthritis and Other Musculoskeletal Diseases</b>															
Gout	M	4	0	0	0	0	0	0	0	0	1	2	0	1	0
	F	1	0	0	0	0	0	0	0	0	0	0	0	0	1
Osteoarthritis	M	28	0	0	0	0	0	2	0	2	10	9	2	3	0
	F	49	0	0	0	0	0	1	0	5	5	23	10	3	2
Osteoporosis	M	22	1	0	1	1	1	4	3	3	2	1	4	1	0
	F	34	0	0	0	0	2	2	7	2	4	7	5	3	2
Rheumatoid arthritis	M	8	1	0	0	0	3	1	0	0	2	0	0	1	0
	F	7	0	1	1	0	0	0	0	0	4	1	0	0	0
<b>Chronic Neurologic Disorders</b>															
Alzheimer's disease	M	4	0	0	0	0	0	0	0	0	1	0	1	1	1
	F	2	0	0	0	0	0	0	0	0	0	0	0	2	0
Amyotrophic lateral sclerosis	M	1	0	0	0	0	0	0	0	0	1	0	0	0	0
	F	1	0	0	0	0	0	0	0	0	1	0	0	0	0
Carpal tunnel syndrome	M	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	F	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Epilepsy	M	16	5	1	3	3	0	0	0	0	0	3	0	0	1
	F	19	11	0	0	2	0	2	1	1	1	0	0	0	1
Guillain-barre syndrome	M	2	0	0	0	0	1	0	0	0	1	0	0	0	0
	F	1	1	0	0	0	0	0	0	0	0	0	0	0	0

**Asian and Pacific Islander (continued)**

Primary Diagnosis	Gender	Total	0-4	5-9	10-14	15-19	20-24	25-34	35-44	45-54	55-64	65-74	75-79	80-84	85+
Migraine headaches	M	2	0	0	0	0	0	0	0	2	0	0	0	0	0
	F	5	0	0	0	0	1	1	1	1	1	0	0	0	0
Multi-infarct dementia	M	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	F	1	0	0	0	0	0	0	0	0	0	0	0	1	0
Multiple sclerosis	M	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	F	1	0	0	0	0	0	0	1	0	0	0	0	0	0
Muscle contraction headache	M	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	F	1	0	0	0	0	0	0	1	0	0	0	0	0	0
Parkinson's disease	M	2	0	0	0	0	0	0	0	0	1	0	1	0	0
	F	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>Other Chronic Diseases</b>															
Benign neoplasms, carcinoma in situ, and other neoplasms	M	54	1	1	0	1	3	5	5	9	11	11	4	3	0
	F	436	1	0	0	5	7	31	161	157	33	28	7	3	3
Cirrhosis	M	46	0	0	0	0	0	1	5	19	13	6	2	0	0
	F	28	0	0	0	0	0	2	5	3	4	9	5	0	0
Diabetes	M	79	0	0	1	1	0	7	7	17	19	15	7	4	1
	F	100	1	0	2	1	2	0	3	17	13	27	11	12	11
Hyperplasia of prostate	M	107	0	0	0	0	0	0	0	3	17	57	15	7	8
<b>Total</b>	<b>M</b>	<b>1,978</b>	<b>31</b>	<b>18</b>	<b>14</b>	<b>10</b>	<b>12</b>	<b>46</b>	<b>121</b>	<b>278</b>	<b>396</b>	<b>554</b>	<b>253</b>	<b>147</b>	<b>98</b>
	<b>F</b>	<b>1,933</b>	<b>25</b>	<b>11</b>	<b>8</b>	<b>9</b>	<b>29</b>	<b>64</b>	<b>236</b>	<b>332</b>	<b>247</b>	<b>443</b>	<b>225</b>	<b>173</b>	<b>131</b>
	<b>All</b>	<b>3,911</b>	<b>56</b>	<b>29</b>	<b>22</b>	<b>19</b>	<b>41</b>	<b>110</b>	<b>357</b>	<b>610</b>	<b>643</b>	<b>997</b>	<b>478</b>	<b>320</b>	<b>229</b>

<b>Orange County Population, 1997</b>	M	157,157	14,360	13,071	11,520	11,572	12,927	28,146	27,239	19,519	10,941	4,952	1,424	809	677
	F	157,970	11,850	12,485	11,063	11,105	12,111	27,290	28,472	20,808	11,470	7,050	2,043	1,244	979

**Number of Chronic Disease Hospitalizations for Black Non-Hispanic Orange County Residents  
by Primary Diagnosis, Age, and Gender, 1997**

Primary Diagnosis	Gender	Total	0-4	5-9	10-14	15-19	20-24	25-34	35-44	45-54	55-64	65-74	75-79	80-84	85+
<b>Cardiovascular Disease</b>															
Atherosclerosis	M	8	0	0	0	0	0	0	0	1	6	0	1	0	0
	F	7	0	0	0	0	0	0	0	0	3	4	0	0	0
Stroke	M	47	0	0	0	0	0	2	4	7	13	13	4	2	2
	F	59	0	0	0	0	0	5	8	11	8	9	9	4	5
Diseases of the heart	M	214	1	1	0	1	1	15	24	56	42	49	12	7	5
	F	207	1	1	0	0	2	8	19	37	41	47	19	15	17
Hypertension with or without renal disease	M	12	0	0	0	0	0	3	6	1	1	1	0	0	0
	F	20	0	0	0	0	0	0	7	3	5	3	1	0	1
<b>Cancer</b>															
Bladder cancer	M	1	0	0	0	0	0	0	0	0	0	1	0	0	0
	F	2	0	0	0	0	0	0	1	0	1	0	0	0	0
Breast cancer (female)	F	13	0	0	0	0	0	4	5	3	0	0	1	0	0
Cervical cancer	F	2	0	0	0	0	0	0	1	1	0	0	0	0	0
Colorectal cancer	M	3	0	0	0	0	0	0	0	2	1	0	0	0	0
	F	5	0	0	0	0	0	0	1	1	1	1	0	0	1
Leukemia	M	3	0	0	0	0	2	0	0	0	0	1	0	0	0
	F	1	0	0	1	0	0	0	0	0	0	0	0	0	0
Lung Cancer	M	11	0	0	0	0	0	0	2	4	2	2	0	1	0
	F	8	0	0	0	0	0	0	0	0	4	2	1	1	0
Lymphoma	M	10	1	0	0	0	0	1	4	1	3	0	0	0	0
	F	6	0	0	1	0	0	0	1	2	2	0	0	0	0
Melanoma of the skin	M	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	F	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Oral and pharyngeal cancer	M	2	0	0	0	0	0	0	0	0	2	0	0	0	0
	F	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Prostate cancer	M	20	0	0	0	0	0	0	0	2	12	3	2	1	0

Black, Non-Hispanic (continued)

Primary Diagnosis	Gender	Total	0-4	5-9	10-14	15-19	20-24	25-34	35-44	45-54	55-64	65-74	75-79	80-84	85+
<b>Chronic Lung Diseases</b>															
Asbestosis	M	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Asthma	M	54	13	11	3	4	1	2	7	8	4	1	0	0	0
	F	69	6	9	7	2	6	10	13	9	3	1	1	1	1
Chronic obstructive pulmonary disease	M	37	0	0	0	0	0	5	10	3	5	11	1	0	2
	F	37	1	0	0	0	0	4	7	4	10	7	3	0	1
Cystic fibrosis	M	1	0	0	0	1	0	0	0	0	0	0	0	0	0
	F	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Interstitial lung disease	M	1	0	0	0	0	0	0	0	0	0	0	1	0	0
	F	1	0	0	0	0	0	0	0	1	0	0	0	0	0
Sleep apnea	M	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	F	2	0	0	0	0	0	0	1	0	0	1	0	0	0
<b>Arthritis and Other Musculoskeletal Diseases</b>															
Gout	M	1	0	0	0	0	0	0	1	0	0	0	0	0	0
	F	1	0	0	0	0	0	0	0	0	1	0	0	0	0
Osteoarthritis	M	18	0	0	0	0	1	0	5	1	5	4	2	0	0
	F	23	0	0	0	0	0	2	1	1	6	10	0	3	0
Osteoporosis	M	10	0	0	0	0	0	1	2	3	1	3	0	0	0
	F	14	0	0	1	0	0	2	1	4	2	1	3	0	0
Rheumatoid arthritis	M	3	0	0	0	0	0	1	0	0	1	0	1	0	0
	F	3	0	0	0	0	0	0	1	1	1	0	0	0	0
<b>Chronic Neurologic Disorders</b>															
Alzheimer's disease	M	1	0	0	0	0	0	0	0	0	0	1	0	0	0
	F	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Amyotrophic lateral sclerosis	M	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	F	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Carpal tunnel syndrome	M	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	F	2	0	0	0	0	0	0	1	1	0	0	0	0	0
Epilepsy	M	8	4	0	0	1	0	0	0	1	1	1	0	0	0
	F	8	1	2	0	0	0	0	4	1	0	0	0	0	0
Guillain-barre syndrome	M	2	0	0	0	1	0	0	1	0	0	0	0	0	0
	F	1	0	0	0	0	0	1	0	0	0	0	0	0	0

**Black, Non-Hispanic (continued)**

Primary Diagnosis	Gender	Total	0-4	5-9	10-14	15-19	20-24	25-34	35-44	45-54	55-64	65-74	75-79	80-84	85+
Migraine headaches	M	2	0	0	0	0	1	1	0	0	0	0	0	0	0
	F	3	0	0	0	0	0	1	2	0	0	0	0	0	0
Multi-infarct dementia	M	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	F	2	0	0	0	0	0	1	0	0	0	0	0	0	1
Multiple sclerosis	M	2	0	0	0	0	0	0	2	0	0	0	0	0	0
	F	7	0	0	0	0	0	0	2	5	0	0	0	0	0
Muscle contraction headache	M	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	F	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Parkinson's disease	M	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	F	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>Other Chronic Diseases</b>															
Benign neoplasms, carcinoma in situ, and other neoplasms	M	7	0	1	0	0	1	0	1	1	2	1	0	0	0
	F	150	1	1	2	1	3	21	70	44	3	2	1	1	0
Cirrhosis	M	5	0	0	1	0	0	0	2	1	1	0	0	0	0
	F	3	0	0	0	0	0	0	3	0	0	0	0	0	0
Diabetes	M	49	0	1	1	0	0	4	7	23	4	3	3	1	2
	F	51	0	0	2	2	1	1	11	13	6	8	1	1	5
Hyperplasia of prostate	M	7	0	0	0	0	0	0	0	1	4	0	2	0	0
<b>Total</b>	<b>M</b>	<b>539</b>	<b>19</b>	<b>14</b>	<b>5</b>	<b>8</b>	<b>7</b>	<b>35</b>	<b>78</b>	<b>116</b>	<b>110</b>	<b>95</b>	<b>29</b>	<b>12</b>	<b>11</b>
	<b>F</b>	<b>707</b>	<b>10</b>	<b>13</b>	<b>14</b>	<b>5</b>	<b>12</b>	<b>60</b>	<b>160</b>	<b>142</b>	<b>97</b>	<b>96</b>	<b>40</b>	<b>26</b>	<b>32</b>
	<b>All</b>	<b>1,246</b>	<b>29</b>	<b>27</b>	<b>19</b>	<b>13</b>	<b>19</b>	<b>95</b>	<b>238</b>	<b>258</b>	<b>207</b>	<b>191</b>	<b>69</b>	<b>38</b>	<b>43</b>

<b>Orange County</b>	M	26,688	2,554	2,662	2,117	1,956	2,096	5,715	5,060	2,639	1,336	414	73	48	18
<b>Population, 1997</b>	F	24,186	2,471	2,627	2,016	1,770	1,796	4,760	4,372	2,462	1,139	508	123	81	61

**Number of Chronic Disease Hospitalizations for Hispanic Orange County Residents  
by Primary Diagnosis, Age, and Gender, 1997**

Primary Diagnosis	Gender	Total	0-4	5-9	10-14	15-19	20-24	25-34	35-44	45-54	55-64	65-74	75-79	80-84	85+
<b>Cardiovascular Disease</b>															
Atherosclerosis	M	35	0	0	0	0	0	0	1	2	10	14	3	3	2
	F	38	0	0	0	0	0	1	1	0	7	15	5	4	5
Stroke	M	318	4	2	1	1	3	5	28	31	74	87	36	25	21
	F	392	3	1	0	3	3	14	18	42	72	89	59	38	50
Diseases of the heart	M	1,364	18	2	2	7	6	34	105	238	327	354	151	69	51
	F	1,223	9	2	9	3	4	29	44	142	215	363	170	106	127
Hypertension with or without renal disease	M	32	0	3	0	0	3	4	12	3	4	2	1	0	0
	F	32	1	0	0	1	0	1	4	7	9	5	2	1	1
<b>Cancer</b>															
Bladder cancer	M	9	0	0	0	0	0	0	0	1	1	3	1	2	1
	F	6	0	0	0	0	0	0	0	1	0	3	0	0	2
Breast cancer (female)	F	88	0	0	0	0	0	5	18	26	19	11	4	4	1
Cervical cancer	F	45	0	0	0	0	0	10	12	11	7	4	0	0	1
Colorectal cancer	M	48	0	0	0	0	1	1	3	5	12	19	2	2	3
	F	54	0	0	0	0	0	6	5	2	5	18	6	6	6
Leukemia	M	40	9	4	6	1	0	7	5	2	1	2	0	1	2
	F	47	9	9	6	3	1	5	2	2	4	5	0	1	0
Lung cancer	M	31	0	0	0	0	0	0	2	2	2	13	8	4	0
	F	20	0	0	0	0	0	2	0	2	2	11	0	3	0
Lymphoma	M	47	4	1	0	3	2	11	6	5	8	6	0	1	0
	F	38	2	1	0	2	1	3	9	3	3	6	3	5	0
Melanoma of the skin	M	1	0	0	0	0	0	0	0	0	0	1	0	0	0
	F	1	0	0	0	0	0	0	0	0	0	1	0	0	0
Oral and pharyngeal cancer	M	19	1	0	1	0	0	2	1	4	4	4	1	0	1
	F	5	0	0	0	0	0	1	0	0	1	3	0	0	0
Prostate cancer	M	68	0	0	0	0	0	0	0	4	23	28	9	1	3

Hispanic (continued)

Primary Diagnosis	Gender	Total	0-4	5-9	10-14	15-19	20-24	25-34	35-44	45-54	55-64	65-74	75-79	80-84	85+
<b>Chronic Lung Diseases</b>															
Asbestosis	M	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Asthma	M	304	156	50	26	5	4	15	15	11	8	11	2	1	0
	F	274	59	39	16	7	20	21	37	24	20	23	5	3	0
Chronic obstructive pulmonary disease	M	127	3	2	0	0	0	2	6	9	29	34	15	12	15
	F	154	3	0	0	0	2	0	7	13	29	43	16	20	21
Cystic fibrosis	M	3	0	0	3	0	0	0	0	0	0	0	0	0	0
	F	2	2	0	0	0	0	0	0	0	0	0	0	0	0
Interstitial lung disease	M	23	4	0	0	0	0	4	1	1	3	5	3	1	1
	F	10	0	0	1	1	0	0	0	1	2	3	1	1	0
Sleep apnea	M	3	0	0	0	0	0	2	1	0	0	0	0	0	0
	F	1	0	0	0	0	0	0	0	0	1	0	0	0	0
<b>Arthritis and Other Musculoskeletal Diseases</b>															
Gout	M	6	0	0	0	0	0	1	0	2	1	2	0	0	0
	F	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Osteoarthritis	M	111	0	0	0	0	0	1	9	9	21	43	22	6	0
	F	114	0	0	0	0	0	1	7	10	21	53	15	7	0
Osteoporosis	M	58	0	3	1	0	2	17	13	4	7	10	1	0	0
	F	49	0	2	1	1	1	1	4	6	8	13	4	4	4
Rheumatoid arthritis	M	7	0	3	1	0	0	1	0	0	1	1	0	0	0
	F	23	0	0	0	0	3	6	5	3	3	2	0	1	0
<b>Chronic Neurologic Disorders</b>															
Alzheimer's disease	M	6	0	0	0	0	0	0	0	0	0	1	2	3	0
	F	7	0	0	0	0	0	0	0	0	0	1	1	2	3
Amyotrophic lateral sclerosis	M	3	0	0	0	0	0	0	0	1	0	2	0	0	0
	F	1	0	0	0	0	0	0	0	0	0	1	0	0	0
Carpal tunnel syndrome	M	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	F	1	0	0	0	0	0	1	0	0	0	0	0	0	0
Epilepsy	M	93	38	9	11	10	4	10	7	0	0	1	3	0	0
	F	67	25	11	4	4	2	7	6	4	2	2	0	0	0
Guillain-barre syndrome	M	6	0	2	0	0	2	1	0	0	0	1	0	0	0
	F	7	0	2	0	3	0	2	0	0	0	0	0	0	0

Hispanic (continued)

Primary Diagnosis	Gender	Total	0-4	5-9	10-14	15-19	20-24	25-34	35-44	45-54	55-64	65-74	75-79	80-84	85+
Migraine headaches	M	5	0	1	0	0	1	0	2	1	0	0	0	0	0
	F	20	0	1	0	0	1	3	5	7	3	0	0	0	0
Multi-infarct dementia	M	3	0	0	0	0	0	0	0	0	1	1	0	1	0
	F	1	0	0	0	0	0	0	0	0	0	0	1	0	0
Multiple sclerosis	M	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	F	9	0	0	0	0	1	2	3	1	1	1	0	0	0
Muscle contraction headache	M	1	0	0	0	0	0	0	0	0	1	0	0	0	0
	F	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Parkinson's disease	M	5	0	0	0	0	0	0	0	0	0	2	1	1	1
	F	4	0	0	0	0	0	0	0	0	1	0	3	0	0
<b>Other Chronic Diseases</b>															
Benign neoplasms, carcinoma in situ, and other neoplasms	M	87	6	3	5	5	4	15	8	17	10	8	5	1	0
	F	515	4	6	3	3	15	69	194	134	24	40	13	4	6
Cirrhosis	M	171	0	0	0	0	0	25	50	43	30	15	5	1	2
	F	67	0	0	0	0	1	5	12	13	15	9	6	5	1
Diabetes	M	365	2	3	7	8	14	32	57	58	91	69	6	11	7
	F	327	4	8	6	6	4	18	29	60	75	77	18	12	10
Hyperplasia of prostate	M	110	0	0	0	0	0	0	0	1	31	52	14	8	4
<b>Total</b>	<b>M</b>	<b>3,509</b>	<b>245</b>	<b>88</b>	<b>64</b>	<b>40</b>	<b>46</b>	<b>190</b>	<b>332</b>	<b>454</b>	<b>700</b>	<b>791</b>	<b>291</b>	<b>154</b>	<b>114</b>
	<b>F</b>	<b>3,642</b>	<b>121</b>	<b>82</b>	<b>46</b>	<b>37</b>	<b>59</b>	<b>213</b>	<b>422</b>	<b>514</b>	<b>549</b>	<b>802</b>	<b>332</b>	<b>227</b>	<b>238</b>
	<b>All</b>	<b>7,151</b>	<b>366</b>	<b>170</b>	<b>110</b>	<b>77</b>	<b>105</b>	<b>403</b>	<b>754</b>	<b>968</b>	<b>1,249</b>	<b>1,593</b>	<b>623</b>	<b>381</b>	<b>352</b>

<b>Orange County Population, 1997</b>	<b>M</b>	<b>398,476</b>	<b>57,662</b>	<b>43,070</b>	<b>29,918</b>	<b>27,500</b>	<b>32,405</b>	<b>98,592</b>	<b>58,272</b>	<b>27,200</b>	<b>13,771</b>	<b>7,102</b>	<b>1,621</b>	<b>735</b>	<b>628</b>
	<b>F</b>	<b>348,365</b>	<b>55,484</b>	<b>40,685</b>	<b>28,032</b>	<b>25,089</b>	<b>26,061</b>	<b>69,347</b>	<b>48,520</b>	<b>26,012</b>	<b>14,768</b>	<b>9,048</b>	<b>2,402</b>	<b>1,441</b>	<b>1,476</b>

**Number of Chronic Disease Hospitalizations for White, Non-Hispanic Orange County Residents  
by Primary Diagnosis, Age, and Gender, 1997**

Primary Diagnosis	Gender	Total	0-4	5-9	10-14	15-19	20-24	25-34	35-44	45-54	55-64	65-74	75-79	80-84	85+
<b>Cardiovascular Disease</b>															
Atherosclerosis	M	324	0	0	0	0	0	1	10	23	68	91	58	33	40
	F	296	0	0	0	0	0	1	3	18	31	93	63	34	53
Stroke	M	2,773	1	3	3	3	4	15	63	178	386	811	572	394	340
	F	3,508	3	3	0	4	3	20	51	123	315	749	644	680	913
Diseases of the heart	M	12,626	22	6	9	12	22	108	512	1,544	2,549	3,708	1,850	1,270	1,014
	F	10,270	6	6	6	7	14	76	215	624	1,147	2,487	1,795	1,717	2,170
Hypertension with or without renal disease	M	118	1	0	0	1	2	8	25	14	28	20	9	4	6
	F	144	0	1	0	0	1	3	9	22	18	31	21	18	20
<b>Cancer</b>															
Bladder cancer	M	238	0	0	0	0	0	0	3	17	34	75	43	43	23
	F	75	0	0	0	0	0	1	2	2	12	21	12	12	13
Breast cancer (female)	F	849	0	0	0	0	1	21	91	198	146	194	85	72	41
Cervical cancer	F	88	0	0	1	0	0	13	23	18	19	6	4	2	2
Colorectal cancer	M	455	0	0	0	0	0	3	13	38	91	144	77	46	43
	F	525	0	0	0	0	0	4	19	39	63	132	81	91	96
Leukemia	M	135	9	6	0	13	5	3	8	14	32	17	12	8	8
	F	94	2	6	6	1	0	2	7	6	22	14	14	8	6
Lung cancer	M	467	0	0	0	0	0	3	6	32	98	168	104	37	19
	F	459	0	0	0	0	0	1	4	38	101	168	76	41	30
Lymphoma	M	194	1	3	3	6	3	10	17	33	35	38	15	18	12
	F	152	0	2	1	0	2	11	16	22	25	29	20	8	16
Melanoma of the skin	M	16	0	0	0	0	0	0	3	4	3	4	0	1	1
	F	21	0	0	0	0	1	2	5	1	3	3	0	2	4
Oral and pharyngeal cancer	M	103	0	0	0	0	0	0	6	15	34	33	7	2	6
	F	66	0	0	3	0	0	0	2	10	22	19	5	3	2
Prostate cancer	M	722	0	0	0	0	0	0	2	53	252	303	56	27	29

White, Non-Hispanic (continued)

Primary Diagnosis	Gender	Total	0-4	5-9	10-14	15-19	20-24	25-34	35-44	45-54	55-64	65-74	75-79	80-84	85+
<b>Chronic Lung Diseases</b>															
Asbestosis	M	7	0	0	0	0	0	0	0	0	1	1	3	1	1
Asthma	M	522	170	66	38	17	16	31	67	31	32	30	13	7	4
	F	992	68	51	29	23	34	135	148	166	102	103	53	37	43
Chronic obstructive pulmonary disease	M	1,268	6	2	4	2	2	3	34	70	221	468	223	140	93
	F	2,136	1	1	1	3	4	10	44	125	335	647	393	305	267
Cystic fibrosis	M	29	5	6	8	2	3	5	0	0	0	0	0	0	0
	F	38	7	5	11	4	1	3	6	1	0	0	0	0	0
Interstitial lung disease	M	80	0	0	0	0	0	7	2	4	9	26	9	12	11
	F	94	0	0	0	0	0	3	1	9	10	25	14	13	19
Sleep apnea	M	21	0	0	0	0	0	3	1	8	4	5	0	0	0
	F	6	0	0	0	0	0	0	2	3	0	1	0	0	0
<b>Arthritis and Other Musculoskeletal Diseases</b>															
Gout	M	17	0	0	0	0	0	0	2	1	3	4	6	0	1
	F	8	0	0	0	0	0	1	1	0	0	2	1	1	2
Osteoarthritis	M	1,234	0	0	0	0	0	9	31	100	274	435	220	123	42
	F	2,134	0	0	0	0	3	9	23	112	306	883	426	254	118
Osteoporosis	M	289	1	2	5	8	10	24	52	42	29	54	24	18	20
	F	647	2	0	3	4	4	22	36	65	48	131	107	94	131
Rheumatoid arthritis	M	40	1	0	2	0	1	1	5	1	9	13	6	1	0
	F	171	2	1	2	3	3	4	10	28	20	52	28	12	6
<b>Chronic Neurologic Disorders</b>															
Alzheimer's disease	M	70	0	0	0	0	0	0	0	0	3	20	13	18	16
	F	85	0	0	0	0	0	0	0	0	1	21	18	17	28
Amyotrophic lateral sclerosis	M	9	0	0	0	0	0	0	0	3	1	3	2	0	0
	F	5	0	0	0	0	0	0	0	0	0	1	2	0	2
Carpal tunnel syndrome	M	5	0	0	0	0	0	0	1	3	1	0	0	0	0
	F	6	0	0	0	0	0	1	1	1	2	1	0	0	0
Epilepsy	M	176	27	10	7	7	18	22	17	19	8	24	11	5	1
	F	150	16	8	11	4	3	16	28	12	8	19	6	13	6
Guillain-barre syndrome	M	23	2	0	0	1	0	3	4	2	2	6	3	0	0
	F	26	2	1	0	2	0	2	3	3	2	7	1	3	0

**White, Non-Hispanic (continued)**

Primary Diagnosis	Gender	Total	0-4	5-9	10-14	15-19	20-24	25-34	35-44	45-54	55-64	65-74	75-79	80-84	85+
Migraine headaches	M	21	0	0	0	0	3	4	5	4	2	3	0	0	0
	F	112	0	0	1	4	8	29	25	17	10	10	2	4	2
Multi-infarct dementia	M	30	0	0	0	0	0	0	0	0	1	11	3	7	8
	F	25	0	0	0	0	0	0	0	0	0	5	8	6	6
Multiple sclerosis	M	15	0	0	0	0	0	1	3	8	1	0	2	0	0
	F	60	0	0	2	0	0	4	18	23	9	3	1	0	0
Muscle contraction headache	M	4	0	0	0	0	0	1	0	1	2	0	0	0	0
	F	9	0	0	0	0	0	6	1	1	0	0	0	1	0
Parkinson's disease	M	64	0	0	0	0	0	0	1	3	6	23	14	10	7
	F	43	0	0	0	0	0	0	0	1	3	10	10	11	8
<b>Other Chronic Diseases</b>															
Benign neoplasms, carcinoma in situ, and other neoplasms	M	467	7	1	3	8	6	27	46	53	89	121	50	27	29
	F	2,538	11	2	8	16	23	198	735	874	251	222	87	61	50
Cirrhosis	M	341	0	0	0	0	1	16	73	76	72	71	18	13	1
	F	238	1	0	1	1	3	12	41	48	50	42	27	9	3
Diabetes	M	987	5	11	17	10	27	79	129	145	170	192	99	72	31
	F	869	9	5	15	16	16	69	111	124	122	149	97	77	59
Hyperplasia of prostate	M	640	0	0	0	0	0	0	0	27	103	247	120	85	58
<b>Total</b>	<b>M</b>	<b>24,532</b>	<b>258</b>	<b>116</b>	<b>99</b>	<b>90</b>	<b>123</b>	<b>387</b>	<b>1,141</b>	<b>2,566</b>	<b>4,654</b>	<b>7,170</b>	<b>3,642</b>	<b>2,422</b>	<b>1,864</b>
	<b>F</b>	<b>26,940</b>	<b>130</b>	<b>92</b>	<b>101</b>	<b>92</b>	<b>124</b>	<b>679</b>	<b>1,681</b>	<b>2,734</b>	<b>3,203</b>	<b>6,280</b>	<b>4,101</b>	<b>3,606</b>	<b>4,117</b>
	<b>All</b>	<b>51,472</b>	<b>388</b>	<b>208</b>	<b>200</b>	<b>182</b>	<b>247</b>	<b>1,066</b>	<b>2,822</b>	<b>5,300</b>	<b>7,857</b>	<b>13,450</b>	<b>7,743</b>	<b>6,028</b>	<b>5,981</b>

<b>Orange County Population, 1997</b>	M	768,013	46,676	47,861	45,049	41,887	40,871	126,260	147,861	115,143	73,071	49,955	16,867	9,645	6,867
	F	783,994	43,618	44,398	42,431	39,679	39,189	119,186	139,680	117,859	75,431	61,143	24,891	17,693	18,796



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## **Appendix C**

# **Chronic Disease- Related Deaths**

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**Number of Chronic Disease Deaths for Orange County Residents  
By Primary Diagnosis, Age, and Gender, 1997**

Primary Diagnosis	Gender	Total	0-4	5-9	10-14	15-19	20-24	25-34	35-44	45-54	55-64	65-74	75-79	80-84	85+
<b>Cardiovascular Disease</b>															
Atherosclerosis	M	79	0	0	0	0	0	1	1	1	6	12	6	17	35
	F	125	0	0	0	0	0	0	0	1	1	11	8	18	86
Stroke	M	457	0	1	0	0	0	0	17	22	49	92	70	69	137
	F	689	2	0	0	0	1	2	6	21	26	71	91	123	346
Diseases of the heart	M	2,394	3	1	0	1	1	10	52	147	256	506	412	399	606
	F	2,763	0	0	1	0	1	9	15	48	110	314	363	488	1,414
Hypertension with or without renal disease	M	29	0	0	0	0	0	0	0	0	1	8	3	11	6
	F	66	0	0	0	0	0	0	0	0	1	10	10	13	32
<b>Cancer</b>															
Bladder cancer	M	59	0	0	0	0	0	0	1	1	4	22	10	11	10
	F	28	0	0	0	0	0	0	0	0	4	7	3	4	10
Breast cancer (female)	F	304	0	0	0	0	0	8	20	55	45	86	36	24	30
Cervical cancer	F	32	0	0	0	0	1	2	4	6	8	6	0	2	3
Colorectal cancer	M	174	0	0	0	0	1	3	0	16	32	42	26	30	24
	F	204	0	0	0	0	0	1	4	17	22	52	24	37	47
Leukemia	M	78	1	0	1	1	1	3	4	6	12	28	8	9	4
	F	79	1	0	2	0	0	3	6	9	13	14	5	9	17
Lung cancer	M	531	0	0	0	0	0	0	5	34	95	188	108	66	35
	F	504	0	0	0	0	0	2	6	34	92	169	83	71	47
Lymphoma	M	99	0	0	0	0	0	5	3	10	19	22	13	15	12
	F	90	0	0	1	0	0	2	5	8	11	19	17	9	18
Melanoma of the skin	M	49	0	0	0	0	0	2	4	11	6	9	6	6	5
	F	29	0	0	0	0	0	1	6	3	6	7	2	3	1
Oral and pharyngeal cancer	M	34	0	0	0	0	0	0	2	4	10	8	5	3	2
	F	14	0	0	1	0	0	0	0	3	2	0	2	3	3
Prostate cancer	M	193	0	0	0	0	0	0	0	0	15	41	36	44	57
<b>Chronic Lung Diseases</b>															
Asbestosis	M	1	0	0	0	0	0	0	0	0	0	0	0	1	0
Asthma	M	19	0	0	0	2	0	4	1	1	2	5	2	0	2

All (continued)

Primary Diagnosis	Gender	Total	0-4	5-9	10-14	15-19	20-24	25-34	35-44	45-54	55-64	65-74	75-79	80-84	85+
Asthma	M	19	0	0	0	2	0	4	1	1	2	5	2	0	2
	F	14	0	0	0	0	2	1	1	3	1	3	0	3	0
Chronic obstructive pulmonary disease	M	361	0	1	0	0	0	0	1	10	26	103	78	67	75
	F	454	0	1	0	0	0	0	2	6	32	112	78	95	128
Interstitial lung disease	M	28	0	0	0	0	0	0	0	0	8	8	5	3	4
	F	37	0	0	0	0	0	0	3	2	1	11	10	5	5
<b>Arthritis and Other Musculoskeletal Diseases</b>															
Osteoarthritis	F	3	0	0	0	0	0	0	0	0	0	1	1	0	1
Osteoporosis	M	2	0	0	0	0	0	0	0	0	0	0	0	0	2
	F	2	0	0	0	0	0	0	0	0	0	0	0	0	2
Rheumatoid arthritis	M	1	0	0	0	0	0	0	0	0	0	1	0	0	0
	F	8	0	0	0	0	0	0	1	0	1	3	2	0	1
<b>Chronic Neurologic Disorders</b>															
Alzheimer's disease	M	57	0	0	0	0	0	0	0	0	0	9	12	15	21
	F	124	0	0	0	0	0	0	0	0	1	8	12	28	75
Amyotrophic lateral sclerosis	M	14	0	0	0	0	0	0	0	2	3	6	2	0	1
	F	22	0	0	0	0	0	0	0	3	5	9	2	2	1
Epilepsy	M	2	0	0	0	0	0	1	1	0	0	0	0	0	0
	F	6	0	0	0	1	0	1	1	1	0	0	1	1	0
Guillain-barre syndrome	M	2	0	0	0	0	0	0	0	0	1	1	0	0	0
	F	2	0	0	0	0	0	0	0	1	0	0	1	0	0
Multi-infarct dementia	M	10	0	0	0	0	0	0	0	0	0	3	0	3	4
	F	28	0	0	0	0	0	0	0	0	0	2	3	6	17
Multiple sclerosis	M	6	0	0	0	0	0	0	0	0	2	2	1	1	0
	F	11	0	0	0	0	0	0	1	2	2	4	0	1	1
Parkinson's disease	M	74	0	0	0	0	0	0	0	0	3	5	23	21	22
	F	49	0	0	0	0	0	0	0	0	0	8	11	11	19
<b>Other Chronic Diseases</b>															
Benign neoplasms, carcinoma in situ, and other neoplasms	M	10	0	0	0	0	0	0	1	1	1	2	1	1	3
	F	22	0	0	0	0	0	0	3	2	1	5	2	3	6
Cirrhosis	M	155	0	0	0	0	0	5	21	40	40	28	10	10	1
	F	79	0	0	0	0	0	1	11	8	18	16	15	7	3
Diabetes	M	143	0	0	0	0	2	1	3	15	23	33	22	21	23
	F	185	0	0	0	0	1	2	3	8	23	34	44	36	34

All (continued)

Primary Diagnosis	Gender	Total	0-4	5-9	10-14	15-19	20-24	25-34	35-44	45-54	55-64	65-74	75-79	80-84	85+
Hyperplasia of prostate	M	4	0	0	0	0	0	0	0	0	0	0	0	1	3
Total	M	5,065	4	3	1	4	5	35	117	321	614	1,184	859	824	1,094
	F	5,973	3	1	5	1	6	35	98	241	426	982	826	1,002	2,347
	All	11,033	7	4	6	5	11	70	215	562	1,040	2,166	1,685	1,826	3,441

Orange County Population, 1997	M	1,356,920	121,726	107,085	89,098	83,357	88,743	259,963	239,646	165,474	99,646	62,705	20,035	11,247	8,195
	F	1,320,755	113,858	100,619	83,924	78,057	79,590	221,721	222,178	168,037	103,315	78,014	29,561	20,512	21,369
Total Number of Deaths	M	7,634	135	22	14	72	66	225	388	553	909	1,601	1,127	1,076	1,446
	F	8,326	115	14	8	27	22	108	198	372	606	1,359	1,112	1,347	3,038

**Number of Chronic Disease Deaths for Asian and Pacific Islander Orange County Residents  
By Primary Diagnosis, Age, and Gender, 1997**

Primary Diagnosis	Gender	Total	0-4	5-9	10-14	15-19	20-24	25-34	35-44	45-54	55-64	65-74	75-79	80-84	85+
<b>Cardiovascular Disease</b>															
Atherosclerosis	M	1	0	0	0	0	0	0	0	0	0	0	0	1	0
	F	3	0	0	0	0	0	0	0	0	0	2	0	1	0
Stroke	M	48	0	0	0	0	0	0	5	4	6	11	6	4	12
	F	53	1	0	0	0	1	1	1	7	8	10	5	12	7
Diseases of the heart	M	100	0	0	0	0	0	0	6	7	15	21	15	11	25
	F	122	0	0	0	0	0	0	0	0	6	23	20	29	44
Hypertension with or without renal disease	M	6	0	0	0	0	0	0	0	0	0	1	1	2	2
	F	4	0	0	0	0	0	0	0	0	0	1	1	1	1
<b>Cancer</b>															
Bladder cancer	M	3	0	0	0	0	0	0	1	0	1	0	0	1	0
	F	2	0	0	0	0	0	0	0	0	0	1	0	0	1
Breast cancer (female)	F	20	0	0	0	0	0	1	1	9	3	5	0	0	1
Cervical cancer	F	5	0	0	0	0	0	1	0	1	2	1	0	0	0
Colorectal cancer	M	13	0	0	0	0	0	1	0	0	5	0	3	3	1
	F	20	0	0	0	0	0	0	1	2	2	7	2	2	4
Leukemia	M	2	0	0	0	0	0	0	0	1	0	1	0	0	0
	F	8	0	0	0	0	0	2	2	1	2	1	0	0	0
Lung cancer	M	31	0	0	0	0	0	0	0	4	8	9	7	3	0
	F	26	0	0	0	0	0	0	0	3	6	5	6	3	3
Lymphoma	M	9	0	0	0	0	0	1	0	1	2	1	3	0	1
	F	7	0	0	0	0	0	0	0	1	1	2	1	1	1
Melanoma of the skin	M	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	F	1	0	0	0	0	0	0	1	0	0	0	0	0	0
Oral and pharyngeal cancer	M	4	0	0	0	0	0	0	0	0	1	1	0	2	0
	F	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Prostate cancer	M	9	0	0	0	0	0	0	0	0	0	1	2	2	4

Asian and Pacific Islander (continued)

Primary Diagnosis	Gender	Total	0-4	5-9	10-14	15-19	20-24	25-34	35-44	45-54	55-64	65-74	75-79	80-84	85+
<b>Chronic Lung Diseases</b>															
Asbestosis	M	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Asthma	M	4	0	0	0	0	0	1	0	1	0	1	1	0	0
	F	1	0	0	0	0	0	0	0	0	1	0	0	0	0
Chronic obstructive pulmonary disease	M	21	0	0	0	0	0	0	0	0	1	4	3	4	9
	F	12	0	0	0	0	0	0	0	0	0	3	3	2	4
Interstitial lung disease	M	1	0	0	0	0	0	0	0	0	1	0	0	0	0
	F	3	0	0	0	0	0	0	0	1	0	0	1	1	0
<b>Arthritis and Other Musculoskeletal Diseases</b>															
Osteoarthritis	F	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Osteoporosis	M	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	F	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rheumatoid arthritis	M	0	0	0	0	0	0	0	0	0	0	0			
	F	2	0	0	0	0	0	0	0	0	0	1	0	0	1
<b>Chronic Neurologic Disorders</b>															
Alzheimer's disease	M	1	0	0	0	0	0	0	0	0	0	1	0	0	0
	F	2	0	0	0	0	0	0	0	0	0	0	0	1	1
Amyotrophic lateral sclerosis	M	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	F	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Epilepsy	M	1	0	0	0	0	0	0	1	0	0	0			
	F	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Guillain-barre syndrome	M	0	0	0	0	0	0	0	0	0	0	0			
	F	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Multi-infarct dementia	M	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	F	4	0	0	0	0	0	0	0	0	0	0	1	1	2
Multiple sclerosis	M	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	F	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Parkinson's disease	M	4	0	0	0	0	0	0	0	0	2	0	2	0	0
	F	2	0	0	0	0	0	0	0	0	0	1	0	0	1

Asian and Pacific Islander (continued)

Primary Diagnosis	Gender	Total	0-4	5-9	10-14	15-19	20-24	25-34	35-44	45-54	55-64	65-74	75-79	80-84	85+
<b>Other Chronic Diseases</b>															
Benign neoplasms, carcinoma in situ, and other neoplasms	M	1	0	0	0	0	0	0	0	0	0	0	0	0	1
	F	2	0	0	0	0	0	0	1	0	0	0	0	1	0
Cirrhosis	M	11	0	0	0	0	0	0	0	3	4	2	2	0	0
	F	1	0	0	0	0	0	0	0	0	1	0	0	0	0
Diabetes	M	15	0	0	0	0	0	0	0	2	1	3	4	3	2
	F	23	0	0	0	0	0	0	1	1	1	3	8	7	2
Hyperplasia of prostate	M	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>Total</b>	<b>M</b>	<b>285</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>3</b>	<b>13</b>	<b>23</b>	<b>47</b>	<b>57</b>	<b>49</b>	<b>36</b>	<b>57</b>
	<b>F</b>	<b>323</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>5</b>	<b>8</b>	<b>26</b>	<b>33</b>	<b>66</b>	<b>48</b>	<b>62</b>	<b>73</b>
	<b>All</b>	<b>608</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>8</b>	<b>21</b>	<b>49</b>	<b>80</b>	<b>123</b>	<b>97</b>	<b>98</b>	<b>130</b>

<b>Orange County</b>	M	157,157	14,360	13,071	11,520	11,572	12,927	28,146	27,239	19,519	10,941	4,952	1,424	809	677
<b>Population, 1997</b>	F	157,970	11,850	12,485	11,063	11,105	12,111	27,290	28,472	20,808	11,470	7,050	2,043	1,244	979
<b>Total Number of Deaths</b>	M	509	17	1	1	8	8	17	30	54	79	100	68	50	76
	F	519	19	4	0	2	5	16	17	46	51	106	66	84	103

**Number of Chronic Disease Deaths for Black, Non-Hispanic County Residents  
By Primary Diagnosis, Age, and Gender, 1997**

Primary Diagnosis	Gender	Total	0-4	5-9	10-14	15-19	20-24	25-34	35-44	45-54	55-64	65-74	75-79	80-84	85+
<b>Cardiovascular Disease</b>															
Atherosclerosis	M	2	0	0	0	0	0	0	1	1	0	0	0	0	0
	F	1	0	0	0	0	0	0	0	0	1	0	0	0	0
Stroke	M	4	0	0	0	0	0	0	1	0	1	1	0	0	1
	F	5	0	0	0	0	0	0	0	1	0	1	1	0	2
Diseases of the heart	M	27	0	0	0	0	0	1	3	8	3	4	2	5	1
	F	23	0	0	0	0	0	1	2	1	1	4	1	9	4
Hypertension with or without renal disease	M	1	0	0	0	0	0	0	0	0	0	1	0	0	0
	F	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>Cancer</b>															
Bladder cancer	M	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	F	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Breast cancer (female)	F	2	0	0	0	0	0	0	0	0	0	2	0	0	0
Cervical cancer	F	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Colorectal cancer	M	3	0	0	0	0	0	0	0	1	1	1	0	0	0
	F	2	0	0	0	0	0	0	1	0	0	0	0	0	1
Leukemia	M	1	0	0	0	0	0	0	0	0	0	1	0	0	0
	F	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Lung cancer	M	5	0	0	0	0	0	0	0	0	2	1	1	1	0
	F	7	0	0	0	0	0	0	1	1	2	2	1	0	0
Lymphoma	M	2	0	0	0	0	0	1	0	0	1	0	0	0	0
	F	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Melanoma of the skin	M	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	F	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Oral and pharyngeal cancer	M	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	F	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Prostate cancer	M	2	0	0	0	0	0	0	0	0	0	0	2	0	0

Black, Non-Hispanic (continued)

Primary Diagnosis	Gender	Total	0-4	5-9	10-14	15-19	20-24	25-34	35-44	45-54	55-64	65-74	75-79	80-84	85+
<b>Chronic Lung Diseases</b>															
Asbestosis	M	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Asthma	M	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	F	1	0	0	0	0	1	0	0	0	0	0	0	0	0
Chronic obstructive pulmonary disease	M	3	0	0	0	0	0	0	0	0	1	2	0	0	0
	F	5	0	0	0	0	0	0	0	1	1	1	1	1	0
Interstitial lung disease	M	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	F	1	0	0	0	0	0	0	1	0	0	0	0	0	0
<b>Arthritis and Other Musculoskeletal Diseases</b>															
Osteoarthritis	F	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Osteoporosis	M	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	F	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rheumatoid arthritis	M	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	F	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>Chronic Neurologic Disorders</b>															
Alzheimer's disease	M	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	F	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Amyotrophic lateral sclerosis	M	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	F	1	0	0	0	0	0	0	0	0	0	0	0	1	0
Epilepsy	M	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	F	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Guillain-barre syndrome	M	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	F	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Multi-infarct dementia	M	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	F	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Multiple sclerosis	M	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	F	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Parkinson's disease	M	1	0	0	0	0	0	0	0	0	0	0	0	1	0
	F	0	0	0	0	0	0	0	0	0	0	0	0	0	0

**Black, Non-Hispanic (continued)**

Primary Diagnosis	Gender	Total	0-4	5-9	10-14	15-19	20-24	25-34	35-44	45-54	55-64	65-74	75-79	80-84	85+
<b>Other Chronic Diseases</b>															
Benign neoplasms, carcinoma in situ, and other neoplasms	M	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	F	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cirrhosis	M	2	0	0	0	0	0	0	0	1	1	0	0	0	0
	F	1	0	0	0	0	0	0	1	0	0	0	0	0	0
Diabetes	M	3	0	0	0	0	0	0	0	0	1	0	0	0	2
	F	6	0	0	0	0	1	0	0	1	2	2	0	0	0
Hyperplasia of prostate	M	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>Total</b>	<b>M</b>	<b>56</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>5</b>	<b>11</b>	<b>11</b>	<b>11</b>	<b>5</b>	<b>7</b>	<b>4</b>
	<b>F</b>	<b>55</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>1</b>	<b>6</b>	<b>5</b>	<b>7</b>	<b>12</b>	<b>4</b>	<b>11</b>	<b>7</b>
	<b>All</b>	<b>111</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>3</b>	<b>11</b>	<b>16</b>	<b>18</b>	<b>23</b>	<b>9</b>	<b>18</b>	<b>11</b>

<b>Orange County Population, 1997</b>	M	26,688	2,554	2,662	2,117	1,956	2,096	5,715	5,060	2,639	1,336	414	73	48	18
	F	24,186	2,471	2,627	2,016	1,770	1,796	4,760	4,372	2,462	1,139	508	123	81	61
<b>Total Number of Deaths</b>	M	97	2	0	0	2	1	6	18	18	17	13	8	7	5
	F	84	2	0	0	1	2	7	9	8	8	17	7	13	10

**Number of Chronic Disease Deaths for Hispanic County Residents  
By Primary Diagnosis, Age, and Gender, 1997**

Primary Diagnosis	Gender	Total	0-4	5-9	10-14	15-19	20-24	25-34	35-44	45-54	55-64	65-74	75-79	80-84	85+
<b>Cardiovascular Diseases</b>															
Atherosclerosis	M	5	0	0	0	0	0	0	0	0	1	0	0	1	3
	F	5	0	0	0	0	0	0	0	0	0	0	1	0	4
Stroke	M	36	0	0	0	0	0	0	3	2	6	9	1	6	9
	F	40	0	0	0	0	0	1	1	2	1	7	12	5	11
Diseases of the heart	M	152	1	1	0	1	0	3	10	12	30	33	19	15	27
	F	186	0	0	1	0	0	2	0	7	22	30	25	22	77
Hypertension with or without renal disease	M	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	F	3	0	0	0	0	0	0	0	0	0	2	0	0	1
<b>Cancer</b>															
Bladder cancer	M	3	0	0	0	0	0	0	0	0	0	2	0	1	0
	F	1	0	0	0	0	0	0	0	0	0	1	0	0	0
Breast cancer (female)	F	22	0	0	0	0	0	5	3	2	3	4	4	0	1
Cervical cancer	F	8	0	0	0	0	1	1	1	1	3	1	0	0	0
Colorectal cancer	M	8	0	0	0	0	0	1	0	0	1	3	2	1	0
	F	9	0	0	0	0	0	1	0	1	1	2	1	1	2
Leukemia	M	12	0	0	1	0	1	1	2	3	1	1	0	1	1
	F	13	1	0	2	0	0	1	1	6	1	0	0	0	1
Lung cancer	M	30	0	0	0	0	0	0	1	0	5	10	5	9	0
	F	21	0	0	0	0	0	1	1	1	3	6	1	4	4
Lymphoma	M	10	0	0	0	0	0	2	0	2	3	1	0	2	0
	F	12	0	0	0	0	0	2	2	0	2	3	1	2	0
Melanoma of the skin	M	1	0	0	0	0	0	1	0	0	0	0	0	0	0
	F	2	0	0	0	0	0	0	0	1	0	1	0	0	0
Oral and pharyngeal cancer	M	2	0	0	0	0	0	0	0	0	1	1	0	0	0
	F	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Prostate cancer	M	12	0	0	0	0	0	0	0	0	2	4	3	2	1

Hispanic (continued)

Primary Diagnosis	Gender	Total	0-4	5-9	10-14	15-19	20-24	25-34	35-44	45-54	55-64	65-74	75-79	80-84	85+
<b>Chronic Lung Diseases</b>															
Asbestosis	M	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Asthma	M	7	0	0	0	1	0	3	1	0	2	0	0	0	0
	F	3	0	0	0	0	1	1	0	1	0	0	0	0	0
Chronic obstructive pulmonary disease	M	18	0	0	0	0	0	0	0	1	2	6	2	3	4
	F	20	0	1	0	0	0	0	0	2	0	4	3	5	5
Interstitial lung disease	M	4	0	0	0	0	0	0	0	0	3	0	0	1	0
	F	8	0	0	0	0	0	0	1	0	1	4	0	1	1
<b>Arthritis and Other Musculoskeletal Diseases</b>															
Osteoarthritis	F	1	0	0	0	0	0	0	0	0	0	0	0	0	1
Osteoporosis	M	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	F	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rheumatoid arthritis	M	1	0	0	0	0	0	0	0	0	0	1	0	0	0
	F	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>Chronic Neurologic Disorders</b>															
Alzheimer's disease	M	2	0	0	0	0	0	0	0	0	0	0	1	1	0
	F	3	0	0	0	0	0	0	0	0	0	1	0	2	0
Amyotrophic lateral sclerosis	M	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	F	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Epilepsy	M	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	F	1	0	0	0	1	0	0	0	0	0	0	0	0	0
Guillain-barre syndrome	M	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	F	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Multi-infarct dementia	M	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	F	1	0	0	0	0	0	0	0	0	0	0	0	0	1
Multiple sclerosis	M	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	F	1	0	0	0	0	0	0	1	0	0	0	0	0	0
Parkinson's disease	M	1	0	0	0	0	0	0	0	0	0	0	0	1	0
	F	2	0	0	0	0	0	0	0	0	0	2	0	0	0

Hispanic (continued)

Primary Diagnosis	Gender	Total	0-4	5-9	10-14	15-19	20-24	25-34	35-44	45-54	55-64	65-74	75-79	80-84	85+
<b>Other Chronic Diseases</b>															
Benign neoplasms, carcinoma in situ, and other neoplasms	M	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	F	3	0	0	0	0	0	0	1	0	0	1	0	0	1
Cirrhosis	M	44	0	0	0	0	0	5	11	14	10	4	0	0	0
	F	12	0	0	0	0	0	0	3	2	4	0	0	2	1
Diabetes	M	28	0	0	0	0	2	0	1	3	6	9	3	3	1
	F	34	0	0	0	0	0	0	2	3	10	5	6	3	5
Hyperplasia of prostate	M	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>Total</b>	<b>M</b>	<b>376</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>16</b>	<b>29</b>	<b>37</b>	<b>73</b>	<b>84</b>	<b>36</b>	<b>47</b>	<b>46</b>
	<b>F</b>	<b>411</b>	<b>1</b>	<b>1</b>	<b>3</b>	<b>1</b>	<b>2</b>	<b>15</b>	<b>17</b>	<b>29</b>	<b>51</b>	<b>74</b>	<b>54</b>	<b>47</b>	<b>116</b>
	<b>All</b>	<b>787</b>	<b>2</b>	<b>2</b>	<b>4</b>	<b>3</b>	<b>5</b>	<b>31</b>	<b>46</b>	<b>66</b>	<b>124</b>	<b>158</b>	<b>90</b>	<b>94</b>	<b>162</b>

<b>Orange County Population, 1997</b>	M	398,476	57,662	43,070	29,918	27,500	32,405	98,592	58,272	27,200	13,771	7,102	1,621	735	628
	F	348,365	55,484	40,685	28,032	25,089	26,061	69,347	48,520	26,012	14,768	9,048	2,402	1,441	1,476
<b>Total Number of Deaths</b>	M	800	55	8	6	30	34	86	100	79	100	123	61	55	63
	F	646	59	3	5	12	10	29	37	41	69	104	72	59	146

**Number of Chronic Disease Deaths for White, Non-Hispanic County Residents  
By Primary Diagnosis, Age, and Gender, 1997**

Primary Diagnosis	Gender	Total	0-4	5-9	10-14	15-19	20-24	25-34	35-44	45-54	55-64	65-74	75-79	80-84	85+
<b>Cardiovascular Disease</b>															
Atherosclerosis	M	70	0	0	0	0	0	1	0	0	4	12	6	15	32
	F	116	0	0	0	0	0	0	0	1	0	9	7	17	82
Stroke	M	364	0	1	0	0	0	0	8	16	36	69	60	59	115
	F	587	1	0	0	0	0	0	3	11	16	53	73	106	324
Diseases of the heart	M	2,084	2	0	0	0	1	5	31	116	203	441	372	364	549
	F	2,405	0	0	0	0	1	6	12	38	81	255	309	419	1284
Hypertension with or without renal disease	M	21	0	0	0	0	0	0	0	0	1	5	2	9	4
	F	59	0	0	0	0	0	0	0	0	1	7	9	12	30
<b>Cancer</b>															
Bladder cancer	M	53	0	0	0	0	0	0	0	1	3	20	10	9	10
	F	24	0	0	0	0	0	0	0	0	4	5	3	4	8
Breast cancer (female)	F	258	0	0	0	0	0	2	16	42	39	75	32	24	28
Cervical cancer	F	19	0	0	0	0	0	0	3	4	3	4	0	2	3
Colorectal cancer	M	148	0	0	0	0	1	1	0	14	25	38	18	27	24
	F	172	0	0	0	0	0	0	2	13	19	43	23	33	39
Leukemia	M	62	1	0	0	1	0	2	2	1	11	25	8	8	3
	F	58	0	0	0	0	0	0	3	2	10	13	5	9	16
Lung cancer	M	463	0	0	0	0	0	0	4	30	79	167	95	53	35
	F	447	0	0	0	0	0	1	4	29	81	155	74	63	40
Lymphoma	M	77	0	0	0	0	0	1	3	6	13	20	10	13	11
	F	71	0	0	1	0	0	0	3	7	8	14	15	6	17
Melanoma of the skin	M	48	0	0	0	0	0	1	4	11	6	9	6	6	5
	F	25	0	0	0	0	0	1	5	2	5	6	2	3	1
Oral and pharyngeal cancer	M	26	0	0	0	0	0	0	1	3	8	6	5	1	2
	F	14	0	0	1	0	0	0	0	3	2	0	2	3	3
Prostate cancer	M	168	0	0	0	0	0	0	0	0	13	36	29	38	52

White, Non-Hispanic (continued)

Primary Diagnosis	Gender	Total	0-4	5-9	10-14	15-19	20-24	25-34	35-44	45-54	55-64	65-74	75-79	80-84	85+
<b>Chronic Lung Diseases</b>															
Asbestosis	M	1	0	0	0	0	0	0	0	0	0	0	0	1	0
Asthma	M	7	0	0	0	1	0	0	0	0	0	3	1	0	2
	F	9	0	0	0	0	0	0	1	2	0	3	0	3	0
Chronic obstructive pulmonary disease	M	316	0	1	0	0	0	0	1	9	22	91	72	59	61
	F	417	0	0	0	0	0	0	2	3	31	104	71	87	119
Interstitial lung disease	M	23	0	0	0	0	0	0	0	0	4	8	5	2	4
	F	25	0	0	0	0	0	0	1	1	0	7	9	3	4
		0													
<b>Arthritis and Other Musculoskeletal Diseases</b>															
		0													
Osteoarthritis	F	2	0	0	0	0	0	0	0	0	0	1	1	0	0
Osteoporosis	M	2	0	0	0	0	0	0	0	0	0	0	0	0	2
	F	2	0	0	0	0	0	0	0	0	0	0	0	0	2
Rheumatoid arthritis	M	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	F	6	0	0	0	0	0	0	1	0	1	2	2	0	0
<b>Chronic Neurologic Disorders</b>															
Alzheimer's disease	M	53	0	0	0	0	0	0	0	0	0	8	10	14	21
	F	118	0	0	0	0	0	0	0	0	1	7	12	25	73
Amyotrophic lateral sclerosis	M	14	0	0	0	0	0	0	0	2	3	6	2	0	1
	F	20	0	0	0	0	0	0	0	3	4	9	2	1	1
Epilepsy	M	1	0	0	0	0	0	1	0	0	0	0	0	0	0
	F	5	0	0	0	0	0	1	1	1	0	0	1	1	0
Guillain-barre syndrome	M	2	0	0	0	0	0	0	0	0	1	1	0	0	0
	F	2	0	0	0	0	0	0	0	1	0	0	1	0	0
Multi-infarct dementia	M	9	0	0	0	0	0	0	0	0	0	2	0	3	4
	F	23	0	0	0	0	0	0	0	0	0	2	2	5	14
Multiple sclerosis	M	6	0	0	0	0	0	0	0	0	2	2	1	1	0
	F	10	0	0	0	0	0	0	0	2	2	4	0	1	1
Parkinson's disease	M	68	0	0	0	0	0	0	0	0	1	5	21	19	22
	F	45	0	0	0	0	0	0	0	0	0	5	11	11	18

White, Non-Hispanic (continued)

Primary Diagnosis	Gender	Total	0-4	5-9	10-14	15-19	20-24	25-34	35-44	45-54	55-64	65-74	75-79	80-84	85+
<b>Other Chronic Diseases</b>															
Benign neoplasms, carcinoma in situ, and other neoplasms	M	8	0	0	0	0	0	0	1	1	1	1	1	1	2
	F	17	0	0	0	0	0	0	1	2	1	4	2	2	5
Cirrhosis	M	94	0	0	0	0	0	0	10	22	23	21	7	10	1
	F	64	0	0	0	0	0	1	7	6	12	16	15	5	2
Diabetes	M	97	0	0	0	0	0	1	2	10	15	21	15	15	18
	F	120	0	0	0	0	0	2	0	3	9	24	29	26	27
Hyperplasia of prostate	M	4	0	0	0	0	0	0	0	0	0	0	0	1	3
<b>Total</b>	<b>M</b>	<b>4,289</b>	<b>3</b>	<b>2</b>	<b>0</b>	<b>2</b>	<b>2</b>	<b>13</b>	<b>67</b>	<b>242</b>	<b>474</b>	<b>1,017</b>	<b>756</b>	<b>728</b>	<b>983</b>
	<b>F</b>	<b>5,140</b>	<b>1</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>1</b>	<b>14</b>	<b>65</b>	<b>176</b>	<b>330</b>	<b>827</b>	<b>712</b>	<b>871</b>	<b>2,141</b>
	<b>All</b>	<b>9,429</b>	<b>4</b>	<b>2</b>	<b>2</b>	<b>2</b>	<b>3</b>	<b>27</b>	<b>132</b>	<b>418</b>	<b>804</b>	<b>1,844</b>	<b>1,468</b>	<b>1,599</b>	<b>3,124</b>

<b>Orange County Population, 1997</b>	M	768,013	46,676	47,861	45,049	41,887	40,871	126,260	147,861	115,143	73,071	49,955	16,867	9,645	6,867
	F	783,994	43,618	44,398	42,431	39,679	39,189	119,186	139,680	117,859	75,431	61,143	24,891	17,693	18,796
<b>Total Number of Deaths</b>	M	6,139	56	13	7	29	22	111	232	392	701	1,346	978	956	1,296
	F	7,019	33	6	3	11	5	56	132	270	472	1,127	956	1,180	2,768



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## **Appendix D**

# **Hospitalization Costs**

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### Chronic Disease-Related Hospitalization Discharge Information for Orange County Residents, 1997

Primary Diagnosis	Number of hospital stays	Length of stay (days)	Mean length of stay (days)	Minimum length of stay (days)	Maximum length of stay (days)	Estimated total payment	Estimated mean payment per hospitalization	Estimated mean payment per day
<b>Cardiovascular Disease</b>								
Atherosclerosis	747	6,237	8.3	1	72	\$23,308,349	\$32,736	<b>\$3,872</b>
Stroke	7,764	53,580	6.9	1	186	\$143,528,142	\$19,175	<b>\$2,770</b>
Diseases of the heart	28,184	149,963	5.3	1	163	\$650,354,629	\$24,036	<b>\$4,503</b>
Hypertension with or without renal disease	413	1,499	3.6	1	15	\$4,064,076	\$9,937	<b>\$2,733</b>
<b>Cancer</b>								
Bladder cancer	355	2,625	7.4	1	40	\$9,391,923	\$27,542	<b>\$3,743</b>
Breast cancer (female)	1,041	3,721	3.6	1	74	\$15,552,100	\$15,202	<b>\$4,242</b>
Cervical cancer	157	843	5.4	1	36	\$3,274,912	\$21,266	<b>\$3,917</b>
Colorectal cancer	1,227	10,991	9.0	1	76	\$34,363,446	\$30,356	<b>\$3,375</b>
Leukemia	352	6,119	17.4	1	204	\$28,140,413	\$85,794	<b>\$4,811</b>
Lung cancer	1,076	8,758	8.1	1	51	\$29,299,606	\$28,697	<b>\$3,503</b>
Lymphoma	484	4,672	9.7	1	62	\$16,490,146	\$37,057	<b>\$3,837</b>
Melanoma of the skin	39	142	3.6	2	11	\$553,806	\$15,384	<b>\$4,133</b>
Oral and pharyngeal cancer	211	1,587	7.5	1	36	\$7,996,719	\$41,009	<b>\$5,331</b>
Prostate cancer	869	3,929	4.5	1	18	\$13,866,733	\$17,077	<b>\$3,781</b>
<b>Chronic Lung Diseases</b>								
Asbestosis	7	31	4.4	2	6	\$109,034	\$15,576	<b>\$3,517</b>
Asthma	2,439	9,958	4.1	1	32	\$23,354,503	\$9,947	<b>\$2,435</b>
Chronic obstructive pulmonary disease	4,011	25,847	6.4	1	101	\$71,469,082	\$18,204	<b>\$2,816</b>
Cystic fibrosis	73	752	10.3	2	99	\$2,723,320	\$38,357	<b>\$3,685</b>
Interstitial lung disease	235	1,818	7.7	1	127	\$6,106,011	\$26,781	<b>\$3,469</b>
Sleep apnea	40	132	3.3	2	20	\$506,368	\$12,984	<b>\$3,895</b>
<b>Arthritis and Other Muculoskeletal Diseases</b>								
Gout	41	208	5.1	1	13	\$425,126	\$10,369	<b>\$2,044</b>
Osteoarthritis	3,784	22,051	5.8	1	33	\$87,980,388	\$23,543	<b>\$4,035</b>
Osteoporosis	1,145	6,531	5.7	1	51	\$18,269,191	\$16,341	<b>\$2,862</b>
Rheumatoid arthritis	264	1,738	6.6	1	49	\$5,229,044	\$20,189	<b>\$3,044</b>

**Hospitalization Discharge Information (continued)**

Primary Diagnosis	Number of hospital stays	Length of stay (days)	Mean length of stay (days)	Minimum length of stay (days)	Maximum length of stay (days)	Estimated total payment	Estimated mean payment per hospitalization	Estimated mean payment per day
<b>Chronic Neurological Disorders</b>								
Alzheimer's disease	178	1,727	9.7	1	56	\$2,393,031	\$13,674	<b>\$1,397</b>
Amyotrophic lateral sclerosis	20	259	13.0	2	108	\$616,614	\$30,831	<b>\$2,381</b>
Carpal tunnel syndrome	14	39	2.8	1	8	\$133,841	\$11,153	<b>\$3,824</b>
Epilepsy	549	2,719	5.0	1	69	\$7,676,074	\$14,733	<b>\$2,951</b>
Guillain-Barre syndrome	69	772	11.2	2	52	\$2,864,733	\$46,963	<b>\$3,968</b>
Migraine headaches	178	566	3.2	1	12	\$1,164,499	\$6,810	<b>\$2,137</b>
Multi-infarct dementia	63	686	10.9	2	35	\$1,199,103	\$19,657	<b>\$1,774</b>
Multiple sclerosis	97	670	6.9	1	39	\$1,323,853	\$13,648	<b>\$1,976</b>
Muscle contraction headache	15	47	3.1	1	5	\$90,231	\$6,015	<b>\$1,920</b>
Parkinson's disease	123	929	7.6	2	57	\$1,814,713	\$14,998	<b>\$1,983</b>
<b>Other Chronic Diseases</b>								
Benign neoplasms, carcinoma in situ, and other neoplasms	4,420	18,982	4.3	1	47	\$64,476,306	\$15,228	<b>\$3,566</b>
Cirrhosis	915	6,830	7.5	1	83	\$22,358,927	\$25,408	<b>\$3,375</b>
Diabetes	2,898	18,534	6.4	1	86	\$48,944,050	\$17,618	<b>\$2,728</b>
Hyperplasia of prostate	885	3,161	3.6	1	47	\$9,204,383	\$11,143	<b>\$3,113</b>
<b>Total</b>	<b>65,382</b>	<b>379,653</b>	<b>5.8</b>	<b>1</b>	<b>204</b>	<b>\$1,360,617,425</b>	<b>\$21,633</b>	<b>\$3,715</b>